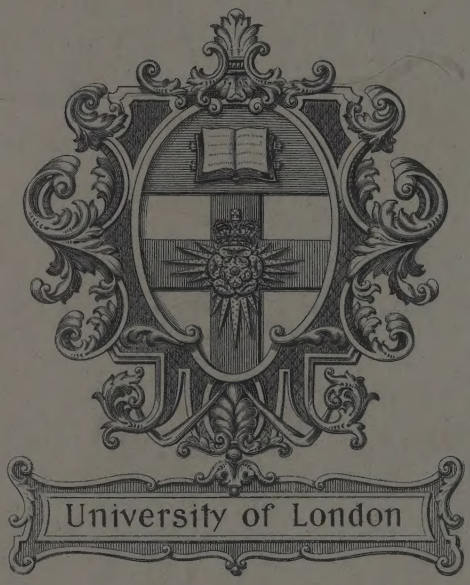
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ACCOUNTS AND PAPERS:

FORTY-FIVE VOLUMES.

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— *(3.)* —

ARMY ~~(MANUFACTURING ESTABLISHMENTS)~~;
ARMY (MEDICAL DEPARTMENT).

Session

8 *February* — 14 *August* 1877.

VOL. LI. & L.

& VOL. XLIX
OCTAVO PORTION.

ACCOUNTS AND PAPERS:

1877.

FORTY-FIVE VOLUMES:—CONTENTS OF THE

THIRD VOLUME.

N.B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Paper; *and the* Figures *at the* end of the line, *refer to the* MS. Paging *of the Volumes arranged for The House of Commons.*

ARMY (MANUFACTURING ESTABLISHMENTS):

31. Return of the Annual Accounts of the several Manufacturing Establishments under the War Office, for the Year 1875-76 (in continuation of Paper, No. 67, of Session 1876) - p. 1

ARMY (MEDICAL DEPARTMENT):

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83. Return of the Number of Medical Officers in each Rank under that of Deputy Inspector General or Deputy Surgeon General on Full Pay, 1868 to 1877, showing the Annual Increase or Decrease, &c. - - - - - - - - - 553

For these papers See Vol 50-51.

ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1876.

VOLUME XVIII.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
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1877.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

SIR,

IN accordance with instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Report on the Health of the Army in 1876, and on various matters connected with the duties of the Officers of the Department.

The Statistical, Sanitary, and Medical Reports have been drawn up by the Officers in charge of the respective Branches.

I have the honour to be,

SIR,

Your most obedient

Humble Servant,

W. M. MUIR,

Director-General.

ARMY MEDICAL DEPARTMENT,
November, 1877.

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ARMY MEDICAL DEPARTMENT REPORT FOR 1876.

STATISTICAL REPORT.

White Troops at Home and Abroad.

The average annual strength of the troops serving at home and abroad in 1876, as computed from the returns received by the Army Medical Department, was 169,197 non-commissioned officers and men (exclusive of the Royal Malta Fencible Artillery, the 1st and 2nd West India Regiments, and the Gun Lascars at Ceylon, and at Hong Kong, Corps which are not recruited at home); the admissions into hospital in this force were 166,319, and the deaths, 1,921. The rates represented by these numbers are for admissions into hospital, 983·, and for deaths, 11·03 per 1,000 of the average annual strength, the latter being calculated on a strength of 174,220, which includes detached men.

The statistics of some of the most important of the results of sickness, in every Command in which the troops were stationed, are exhibited in the following Table:—

1876.

White Troops.	Average Annual Strength.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness, exclusive of those on board Ship.
Troops at Home and Abroad ..	**169,197**	**166,319**	**1,921**	**2,649**	**3,769**	**7436·12**
United Kingdom ..	87,758	71,405	782	..	2,370	3474·76
Gibraltar..	4,695	3,129	36	39	26	175·60
Malta	4,539	3,644	47	95	58	198·94
Dominion of Canada ..	1,760	1,084	8	36	19	51·74
Bermuda..	1,934	1,166	15	57	22	66·42
West Indies	1,086	823	4	5	4	45·00
Cape of Good Hope and St. Helena..	2,739	2,095	21	28	25	110·00
Mauritius	440	712	3	9	8	16·62
Ceylon	1,076	795	8	28	13	54·98
China and Straits Settlements ..	2,589	2,614	42	61	22	107·01
Fiji	57	114	3	5	..	5·05
India	58,641	77,998	944	2,286	1,202	3130·00
On board Ship	1,883	740	8	..	..	..

Troops at Home and Abroad.

1876.—Annual Ratio per 1,000 of Mean Strength. White Troops.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.	Average Sick-time to each Man.	Average duration of each case of Sickness.
						Days.	Days.
Troops at Home and Abroad	983·0	11·03	32·53*	21·63	43·95	16·04	16·32
United Kingdom	813·7	8·43	..	25·54	39·60	14·45	17·46
Gibraltar	656·4	7·67	8·31	5·54	37·40	13·65	20·48
Malta	802·8	10·35	20·93	12·80	43·83	16·00	19·93
Dominion of Canada	615·9	4·55	20·45	10·63	29·40	10·73	17·00
Bermuda	602·8	7·76	29·47	11·37	34·34	12·54	20·79
West Indies	757·8	3·68	4·60	3·68	41·44	15·12	19·96
Cape of Good Hope and St. Helena	764·9	7·67	10·22	9·13	40·16	14·66	19·16
Mauritius	1618·2	6·81	20·45	18·18	37·77	13·79	8·52
Ceylon	738·8	7·43	26·02	12·08	51·10	18·65	25·24
China and Straits Settlements	1069·7	16·22	23·56	8·50	41·33	15·09	14·95
Fiji	2000·0	52·63	87·72	..	88·60	32·34	16·16
India	1330·1	16·10	38·98	20·50	53·38	19·48	14·65
On board Ship	393·0	4·25	..	..	..	..	..

* Calculated on Strength excluding United Kingdom.

10 Years—1866 to 1875.

White Troops.	Aggregate Strength for 10 Years.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad	1,679,181	1,723,137	23,892	31,940	36,202	75,451
United Kingdom	819,868	675,372	7,817	..	22,699	32,842
Gibraltar	45,021	29,443	287	1,229	792	1,497
Malta	48,700	39,867	609	1,248	842	2,004
Dominion of Canada	64,063	41,229	594	1,089	862	1,997
Bermuda	17,312	12,223	255	389	246	614
West Indies	13,968	13,947	230	393	181	614
Cape of Good Hope and St. Helena	33,146	34,151	356	857	618	1,645
Mauritius	7,865	12,379	168	342	109	445
Ceylon	9,416	10,309	166	380	168	478
China and Straits Settlements	13,222	19,457	225	747	381	743
India	574,215	816,401	12,893	25,266	9,304	32,572
On board Ship	32,385	18,359	292	..	..	..

Troops at Home and Abroad.

1866–75.—Annual Rate per 1,000 of Mean Strength. White Troops.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.	Average Sick-time to each Man.	Average duration of each case of Sickness.
						Days.	Days.
Troops at Home and Abroad	1026·2	13·91	37·17*	21·10	44·93	16·40	16·01
United Kingdom	823·8	9·11	..	26·45	40·06	14·62	17·75
Gibraltar	654·0	6·37	27·30	17·59	33·25	12·14	18·56
Malta	818·6	12·51	25·63	17·29	41·15	15·02	18·35
Dominion of Canada.. ..	642·1	9·27	17·00	13·46	31·17	11·38	17·68
Bermuda	706·0	14·73	22·47	14·21	35·47	12·94	18·33
West Indies	998·6	16·47	28·14	12·96	43·96	16·04	16·07
Cape of Good Hope and St. Helena	1030·3	10·74	25·85	18·64	49·63	18·12	17·59
Mauritius	1573·9	21·36	43·48	13·86	56·58	20·65	13·12
Ceylon..	1094·8	17·63	40·36	17·84	50·76	18·53	16·92
China and Straits Settlements	1471·6	17·02	56·50	28·82	56·19	20·51	13·94
India	1421·7	22·45	44·00	16·20	56·72	20·71	14·62
On board Ship	566·9	9·02	..	..	..	..	..

* Calculated on Strength excluding United Kingdom.

II.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

United Kingdom.

According to the returns received in the Army Medical Department, the average annual strength of the non-commissioned officers and men in the United Kingdom was 87,758; the admissions into hospital in this number were 71,405, being in the rate of 813·7 per 1,000 of the strength; the average number of men in hospital daily throughout the year was 3,475, being in the rate of 39·60 per 1,000; there were 699 deaths amongst the men present with their corps, and 83 deaths amongst men detached (the average number of whom is given in the Adjutant-General's Return as 5,023); the death-rate of the non-commissioned officers and men in 1876, is therefore 8·43 per 1,000 of the strength.

Compared with the corresponding rates of the preceding year, there is a decrease of 17·6 per 1,000 men for admissions, of ·93 per 1,000 for deaths, and of ·87 per 1,000 for daily sick.

The classes and orders of diseases to which the admissions and deaths were due, are shown in the following Table;—

United Kingdom.

Orders.	Average Strength in Weekly Returns, 87,758. Average Strength, including men detached, 92,781.	Admitted into Hospital.	Died.			Ratio per 1,000 of Mean Strength.			
			With the Regiment.	Absent from the Regiment.	Total.	1876.		1869–75.	
						Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	3,787	41	6	47	43·1	·51	52·7	·61
2	Constitutional „ ..	11,955	270	20	290	136·2	3·13	150·7	2·84
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	1,221	48	15	63	13·9	·68	11·7	·57
2	Eye	1,472	..	..	..	16·8	..	15·9	..
3	Ear	347	..	..	..	4·0	..	3·7	·01
4	Nose	61	..	..	..	·7	..	·4	
5	Circulatory System ..	1,313	108	13	121	15·0	1·30	13·8	1·49
6	Absorbent „ ..	1,343	..	..	..	15·3	..	13·5	·01
7	Ductless Glands ..	3	..	..	..				
8	Respiratory System ..	7,910	96	7	103	90·1	1·11	85·2	1·40
9	Digestive „ ..	9,979	47	3	50	113·7	·54	103·7	·59
10	Urinary „ ..	6,966	17	3	20	79·4	·22	100·8	·28
11	Generative „ ..	1,050	..	..	..	12·0	..	12·4	·04
12	Organs of Locomotion	487	10	..	10	5·6	·11	4·9	
13	Cellular Tissue ..	2,020	2	..	2	23·0	·02	22·1	·02
14	Cutaneous System ..	9,503	..	..	..	108·2	..	98·1	
	III. *Conditions, &c.* Debility	1,027	1	..	1	11·7	·01	7·4	·01
	IV. *Poisons* ..	276	2	1	3	3·1	·03	2·6	·10
	V. *Injuries.*								
1	Battle	6	..	..	..	·1	..		..
2	Accidental	10,482	34	10	44	119·5	·47	102·6	·51
3	Homicidal	1	4	..	4	..	·04		·03
4	Self-inflicted	17	18	1	19	·2	·21	·2	·26
6	Judicial	7	..	..	..	·1	..		·01
	VI. *Surgical Operations*	17	..	..	..	·2	..	·3	
	No appreciable disease	148	..	..	..	1·7	..	1·4	·02
	Not known	7	1	4	5	·1	·05	..	
	Total	71,405	699	83	782	813·7	8·43	804·	8·80

General Diseases.—There is a small decrease (9·4 per 1,000 men) in the rate of prevalence of diseases of this class on that of the preceding year, the greater part of which is in the *constitutional group*, the rate of the *febrile group*, is only a little lower. The rate of mortality for the class is fractionally higher than in 1875, the whole of the increase occurs in the constitutional group.

The admissions and deaths from the principal diseases of this class, are shown in the following Table :—

United Kingdom.

Strength, 87,758. General Diseases.	Admitted.	Died. With the Regiment.	Died. Absent from the Regiment.	Died. Total.	Ratio per 1,000 of Mean Strength. Admitted.	Ratio per 1,000 of Mean Strength. Died.
Febrile—						
Eruptive Fevers	371	5	1	6	4·2	·06
Continued „	1,808	21	4	25	20·6	·27
Paroxysmal „	742	..	..	..	8·4	..
Influenza	551	..	..	..	6·3	..
Erysipelas	173	8	..	8	2·0	·09
Other diseases	142	7	1	8	1·6	·09
Total of Febrile Group..	3,787	41	6	47	43·1	·51
Constitutional—						
Rheumatism	4,126	2	..	2	47·0	·02
Syphilis	6,444	5	..	5	73·4	·06
Scorfula, Phthisis, &c.	1,130	247	19	266	12·9	2·87
Scurvy and Purpura	29	3	..	3	·3	·03
Anæmia..	117	1	..	1	1·3	·01
Other diseases	109	12	1	13	1·3	·14
Total of Constitutional Group..	11,955	270	20	290	136·2	3·13

Local Diseases.—Compared with the preceding year, there is a reduction in the rate of admissions of diseases of the *nervous*, *circulatory*, *respiratory*, *digestive* and *generative systems*, in no instance a material one, the greatest being in that of the respiratory system, for which it amounts to 12·6 per 1,000 men only; diseases of the *absorbent*, *urinary*, *locomotive*, and *cutaneous systems*, give slightly higher rates, the greatest being 8·6 per 1,000 men for diseases of the urinary system. With lower rates of prevalence there are lower rates of mortality in diseases of the *circulatory*, *respiratory*, and *digestive* systems, the decrease in that of the *respiratory* system, amounting to the relatively large proportion of ·66 per 1,000 men. For diseases of the *organs of locomotion*, the rate of mortality is ·07 per 1,000 men higher than in 1876.

Conditions, &c.—*Debility.*—The rate of admissions is a little lower (1·6 per 1,000 men) than in the preceding year.

Poisons.—The rate of admissions is only fractionally different from that of 1875, but the death rate is ·14 per 1,000 men lower, being less than one-fifth of that for the preceding year.

Injuries—*Accidental.*—The rate of admissions is nearly the same as that for the preceding year, the death rate is ·12 per 1,000 lower; *homicidal* deaths are in a four-fold, and *self-inflicted* deaths are in nearly a two-fold higher rate, than in 1876.

The admissions and deaths in the various Military Districts are shown in the following Table:—

United Kingdom.

Military Districts.	Average Annual Strength.	Admitted into Hospital.	Died.	Average Number constantly Sick.	Ratio per 1,000 of Mean Strength.		
					Admitted.	Died.	Constantly Sick.
1. Northern	7,288	6,649	85	315·08	912·3	11·66	43·23
2. Eastern	4,214	4,777	29	209·88	1133·4	6·88	49·82
3. Western	4,926	3,946	44	193·87	801·1	8·93	39·36
4. Southern	8,779	6,609	83	354·44	752·8	9·45	40·37
5. Chatham	4,588	3,109	31	140·26	677·6	6·76	30·54
6. South-Eastern ..	7,589	5,300	37	265·07	698·4	4·88	34·93
7. Home	5,586	5,173	53	270·55	926·1	9·49	48·43
8. Woolwich	6,378	5,549	55	266·66	870·0	8·62	41·81
9. Aldershot	12,055	10,661	77	566·71	884·4	6·39	47·01
10. North British ..	3,336	2,692	33	135·27	807·0	9·89	40·55
11. Channel Islands ..	1,602	1,264	10	49·31	789·0	6·24	30·78
12. Belfast	2,494	1,793	24	84·81	718·9	9·62	34·01
13. Dublin	6,213	5,469	53	268·19	880·3	8·53	43·17
14. Curragh	4,112	2,511	26	125·92	610·7	6·32	30·62
15. Cork	7,533	5,281	58	228·74	701·1	7·70	30·37
Mobilised Army Corps ..	1,065	622	1	..	584·0	·94	..
Detached from their Corps	5,023	..	83	..	..	..	..
	92,781	71,405	782	3474·76	813·7	8·43	39·60

As in the preceding year the highest rate of admissions is that for the Eastern District, it exceeds the rate of the Home District, the next highest, by 207 per 1,000 men, and that of the Curragh, which has the lowest rate, by 522·7 per 1,000 men. The admission-rate of the Chatham District, which in 1875 was below that of any other, is the lowest but one in the present year. Compared with the preceding year the Eastern, Western, Chatham, Aldershot, North British, and Channel Islands Districts, have higher rates of admission, the remaining Districts have lower ones.

The results of sickness in the four permanent Camps (which are included in the above) are separately grouped in the following Table :—

	Average Annual Strength.	Admitted into Hospital.	Died.	Average Number constantly Sick.	Ratio per 1,000 of Mean Strength.		
					Admitted.	Died.	Constantly Sick.
Camps	20,573	17,339	124	885·54	842·8	6·02	43·04

The admission-rate for Camps is 61·5 per 1,000 men lower than the corresponding rate for the preceding year.

The admissions and deaths in each class and order of diseases are shown in the following Tables :—

Class.	Order.	Districts	Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern.		Home.		Woolwich.		Aldershot.		North British.		Channel Islands.		Belfast.		Dublin.		Curragh.		Cork.		Mobilized Army Corps.		United Kingdom
		Average Strength	7,288		4,214		4,926		8,779		4,588		7,589		5,586		6,378		12,055		3,336		1,602		2,494		6,213		4,112		7,533		1,065		
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	
I.	1	*General Diseases.* Sub-division A	290	8	296	2	174	1	371	7	253	1	211	1	331	...	435	1	420	5	199	3	69	1	75	3	267	4	93	3	272	1	31	...	
	2	*General Diseases.* „ B	1,252	32	654	10	609	18	970	21	537	9	825	13	1,275	27	833	23	1,781	31	488	8	161	3	295	11	1,001	23	403	12	773	29	98	...	
II.	1	*Local Diseases.*—Diseases of the Nervous System	83	6	84	...	67	1	116	5	51	3	101	3	81	5	70	2	216	6	52	6	25	...	17	2	118	3	43	4	80	2	12	...	
	2	Eye	149	...	121	...	78	...	154	...	68	...	125	...	55	...	92	...	182	...	42	...	20	...	37	...	109	...	88	...	123	...	29	...	
	3	Ear	27	...	26	...	17	...	37	...	8	...	28	...	20	...	33	...	43	...	7	...	5	...	12	...	27	...	16	...	33	...	3	...	
	4	Nose	1	...	2	...	3	...	4	...	5	...	6	...	8	...	6	...	13	...	...	...	1	...	...	...	6	...	...	...	6	...	...	...	
	5	Circulatory System	107	8	66	9	98	7	147	15	61	6	102	5	51	6	86	7	227	13	45	10	27	4	34	1	95	4	52	2	103	11	12	...	
	6	Absorbent „	175	...	80	...	68	...	91	...	45	...	81	...	103	...	79	...	254	...	25	...	21	...	35	...	127	...	51	...	91	...	17	...	
	7	Ductless Glands	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	
	8	Respiratory System	679	14	643	2	408	10	777	10	243	5	541	6	510	10	556	7	1,457	8	314	3	65	...	218	3	627	9	249	3	601	6	22	...	
	9	Digestive „	793	6	670	3	490	3	930	7	484	2	763	3	704	2	921	8	1,572	4	370	1	135	...	219	3	687	2	345	...	824	3	72	...	
	10	Urinary „	713	3	410	...	501	...	688	6	304	1	417	1	544	1	535	...	1,003	2	173	...	200	...	148	1	575	2	231	...	452	...	72	...	
	11	Generative „	93	...	86	...	69	...	79	...	44	...	82	...	81	...	63	...	158	...	46	...	17	...	36	...	95	...	34	...	59	...	8	...	
	12	Organs of Locomotion	63	2	29	...	22	...	36	...	18	...	46	1	31	...	42	1	57	3	19	...	7	...	9	...	41	1	31	1	34	1	2	...	
	13	Cellular Tissue	154	1	117	...	55	...	185	...	94	1	170	...	208	...	139	...	290	...	71	...	40	...	73	...	165	...	78	...	161	...	20	...	
	14	Cutaneous System	903	...	693	...	611	...	886	...	422	...	732	...	519	...	680	...	1,331	...	372	...	174	...	280	...	661	...	414	...	732	...	93	...	
III.		*Debility*	95	...	114	...	43	...	94	...	57	...	92	...	38	...	54	...	210	...	21	...	11	...	18	...	89	...	13	...	62	1	16	...	
IV.		*Poisons*	23	...	17	...	23	...	22	1	4	...	26	...	15	1	58	...	23	...	6	...	14	...	3	...	11	...	4	...	27	...	...	...	
V.	1	*Injuries.* Battle	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	2	Accidental	1,034	2	648	3	597	2	991	8	401	2	934	3	594	...	828	2	1,413	3	435	2	269	1	280	...	757	2	357	1	836	2	108		
	3	Homicidal	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	
	4	Self-inflicted	1	2	3	...	...	2	4	3	...	1	2	...	1	...	...	4	1	2	...	...	1	...	1	...	3	3	...	...	...	1	...	...	
	6	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	
VI.		*Surgical Operations*	3	...	...	...	...	...	...	...	2	...	...	...	4	...	3	...	3	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	
		No appreciable disease	9	...	12	...	13	...	27	...	8	...	15	...	...	...	34	...	2	...	6	...	2	...	2	...	7	...	4	...	7	...	...	...	
		Not known	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	
		General Total	6,649	85	4,777	29	3,946	44	6,609	83	3,109	31	5,300	37	5,173	53	5,549	55	10,661	77	2,692	33	1,264	10	1,793	24	5,469	53	2,511	26	5,281	58	622		

Ratios per 1,000 of Strength.

Class.	Order.	Districts	Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern		Home.		Woolwich.		Aldershot.		North British.		Channel Islands.		Belfast.		Dublin.		Curragh.		Cork.		Mobilised Army Corps.	
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I.	1	*General Diseases.* Sub-division A	39·8	1·10	70·2	·47	35·3	·20	42·3	·80	55·1	·22	27·8	·13	59·3	...	68·2	·16	34·9	·41	59·6	·90	43·1	·62	30·1	1·20	43·0	·65	22·6	·73	36·1	·13	29·1	...
	2	*General Diseases.* „ B	171·8	4·39	155·2	2·37	123·6	3·65	110·5	2·39	117·0	1·26	108·7	1·71	228·3	4·83	130·6	3·61	147·7	2·57	146·3	2·39	100·5	1·87	118·3	4·41	161 1	3·70	98·0	2·92	102·6	3·85	92·0	...
II.	1	*Local Diseases.*—Diseases of the Nervous System ...	11·4	·82	19·9	...	13·6	·20	13·2	·57	11·2	·65	13·3	·39	14·5	·90	11·0	·31	17·9	·50	15·6	1·80	15·6	...	6·8	·80	19·0	·48	11·7	97	10·6	·26	11·3	...
	2	Eye	20·4	...	28·7	...	15·8	...	17·5	...	14·8	...	16·5	...	9·9	...	14·4	...	15·1	...	12·6	...	12·5	...	14·8	...	17·5	...	21·4	...	16·3	...	27·2	..
	3	Ear	3·7	...	6·2	...	3·4	...	4·2	...	1·7	...	3·7	...	3·6	...	5·2	...	4·0	...	2·1	...	3·1	...	4·3	...	4·3	...	3·9	...	4·4	...	2·8	...
	4	Nose	·1	...	·5	...	·6	...	·5	...	1·1	...	·8	...	1·4	...	·9	...	1·1	...	...	...	·6	...	...	...	1·0	...	...	...	·8	...	...	...
	5	Circulatory System	14·7	1·10	15·7	2·14	19·9	1·42	16·7	1·71	13·3	1·31	13·4	·66	9·1	1·07	13·5	1·10	18·8	1·09	13·5	3·00	16·9	2·50	13·6	·40	15·3	·65	12·6	·49	13·7	1·46	11·3	...
	6	Absorbent „	24·0	...	19·0	...	13·8	...	10·4	...	9·8	...	10·7	...	18·4	...	12·4	...	21·1	...	7·5	...	13·1	...	14·0	...	20·4	...	12·4	...	12·1	...	16·0	...
	7	Ductless Glands ...	·1	...	...	...	...	...	...	...	...	...	·1	...	...	...	...	...	...	...	...	...	...	...	...	...	·2	...	...	...	...	...	...	...
	8	Respiratory System	93·2	1·92	152·6	·47	82·8	2·03	88·5	1·14	53·0	1·09	71·3	·79	91·3	1·79	87·2	1·10	120·8	·66	94·1	·90	40·6	...	87·4	1·20	100·9	1·45	60·5	·73	79·8	·80	20·6	...
	9	Digestive „	108·8	·82	159·0	·71	99·5	·61	105·9	·80	105·5	·43	100·5	·39	126·0	·36	144·4	1·25	130·5	·33	110·9	·30	84·3	...	87·8	1·20	110·6	·32	83·9	...	109·3	·40	67·6	...
	10	Urinary „	97·8	·41	97·3	...	101·7	...	78·4	·68	66·3	·22	54·9	·13	97·4	·18	83·9	..	83·2	·17	51·9	...	124·8	...	59·3	·40	92·5	·32	56·2	...	60·0	...	67·6	...
	11	Generative „	12·8	...	20·4	...	14·0	...	9·0	...	9·6	...	10·8	...	14·5	...	9·9	...	13·1	...	13·8	...	10·6	...	14·4	...	15·3	...	8·3	...	7·8	...	7·5	...
	12	Organs of Locomotion	8·6	·27	6·9	...	4·5	...	4·1	...	3·9	...	6·1	·13	5·6	...	6·6	·16	4·7	·25	5·7	...	4·4	...	3·6	...	6·6	·16	7·5	·24	4·5	·13	1·9	...
	13	Cellular Tissue ...	21·1	·14	27·8	...	11·2	...	21·1	...	20·5	·22	22·4	...	37·2	...	21·8	...	24·1	...	21·3	...	25·0	...	29·2	...	26·6	...	18·9	...	21·4	...	18·8	
	14	Cutaneous System	123·9	...	164·4	...	124·0	...	100·9	...	92·0	...	96·4	...	92·9	...	106·5	...	110·4	...	111·5	...	108·6	...	112·3	...	106·4	...	100·7	...	97·2	...	87·3	...
III.		*Debility*	13·0	...	27·0	...	8·7	...	10·7	...	12·4	...	12·1	...	6·8	...	8·5	...	17·4	...	6·3	...	6·9	...	7·2	...	14·3	...	3 2	...	8·2	·13	15·0	...
IV.		*Poisons*	3·1	...	4·0	...	4·7	...	2·5	·11	·9	...	3·4	...	2·7	·18	9·1	...	1·9	...	1·8	...	8·7	...	1·2	...	1·8	...	1·0	...	3·6	...	...	...
V.	1	*Injuries.* Battle	...	...	1·4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	Accidental	142·2	·27	153·8	·71	121·2	·41	112·9	·91	87·4	·43	123·1	·39	106·3	...	129·8	·31	117·2	·25	130·4	·60	167·9	·62	112·3	...	121·8	·32	86·8	·24	111·0	·26	101·4	·94
	3	Homicidal	·1	·14	...	...	...	...	...	...	...	...	...	...	...	·18	...	...	...	...	...	...	...	·62	...	...	...	...	...	...	...	·13	...	...
	4	Self-inflicted ...	·1	·27	·7	...	...	·41	·5	·34	...	·22	·3	...	·2	...	...	·63	·1	·17	...	...	·6	...	·4	...	·5	·48	...	...	...	·13	...	...
	6	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·3	...	...	...	...	...	...	...	...	...	...	...	...	...	·7	...	...	...
VI.		*Surgical Operations*	·4	...	...	...	...	...	...	...	·4	...	...	...	·7	...	·5	...	·2	...	·3	...	...	...	·4	...	...	...	...	...	...	...	...	...
		No appreciable disease	1·2	...	2·8	...	2·7	...	3·1	...	1·7	..	2·0	...	...	...	5·3	...	·2	...	1·8	...	1·2	...	·8	...	1·1	...	1·0	...	·9	...	...	...
		Not known ...	...	...	...	...	...	...	...	...	...	...	...	·13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·6	...
		General Total ...	912·3	11·65	1133·5	6·87	801 0	8·93	752·8	9·45	677·6	6·75	698·3	4·85	926·1	9·49	870·5	8·63	884·4	6·40	807·0	9·89	789·0	6·23	718·7	9·61	880·2	8·53	610·6	6·32	701·0	7·68	584·0	·94

United Kingdom.

GENERAL DISEASES.—The highest rate of admissions for diseases in this class, that of the Home District, is 18·4 per 1,000 men lower than the corresponding rate of the same District for the preceding year; the whole of the decrease occurs in the *constitutional group*; in the *febrile group* of diseases, there is a relatively considerable increase in that District.

The rates of admissions and of deaths in the two groups of this class are shown in the following Tables:—

Districts		Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern.		Home.		Woolwich.		Aldershot.		North British.		Channel Isles.		Belfast.		Dublin.		Curragh.		Cork.		Mobilised Army Corps	
Average Strength		7,288		4,214		4,926		8,779		4,588		7,589		5,586		6,378		12,055		3,336		1,602		2,494		6,213		4,112		7,533		1,065	
Class of Diseases.		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.—General Diseases. Febrile Group.	Eruptive Fevers	34	2	16	...	11	...	58	1	37	1	31	...	17	...	82	...	28	...	5	...	1	...	10	...	15	...	2	1	23	...	1	...
	Continued ,,	181	3	130	1	96	...	175	4	100	...	114	1	210	...	132	1	207	1	43	2	46	1	44	2	108	2	65	2	132	1	25	...
	Paroxysmal ,,	35	...	50	...	39	...	105	...	92	...	34	...	23	...	140	...	57	...	65	...	20	...	7	...	21	...	21	...	28	...	5	...
	Influenza	24	...	26	...	5	...	11	...	7	...	22	...	60	...	65	...	74	...	76	...	...	...	8	...	106	...	...	...	67	...	...	...
	Erysipelas	14	3	12	1	16	...	16	2	4	...	7	...	15	...	15	...	32	1	8	...	1	...	4	...	13	1	5	...	11	...	...	...
	Other Diseases	2	...	62	...	7	1	6	...	13	...	3	...	6	...	1	...	22	3	2	1	1	...	2	1	4	1	...	...	11	...	...	...
	Total of Febrile Group	290	8	296	2	174	1	371	7	253	1	211	1	331	...	435	1	420	5	199	3	69	1	75	3	267	4	93	3	272	1	31	...
Constitutional Group.	Rheumatism	342	...	301	...	194	...	361	...	212	...	346	...	289	...	298	...	727	1	156	...	41	...	79	...	286	...	199	...	271	1	24	...
	Syphilis	765	1	301	...	342	2	484	1	268	...	374	...	844	...	440	...	885	1	273	...	105	...	167	...	602	...	142	1	384	...	68	...
	Scrofula, Phthisis, &c.	120	31	45	10	61	16	109	18	43	9	82	13	117	27	63	21	141	26	51	8	12	3	44	9	89	20	51	11	99	25	3	...
	Scurvy and Purpura	2	...	...	...	2	...	...	...	1	...	2	...	1	...	2	1	3	...	1	...	2	...	1	1	...	...	1	...	2	...	...	...
	Anæmia	14	...	1	...	9	...	8	...	11	...	13	...	17	...	26	...	10	...	6	...	1	...	2	...	3	1	...	...	4	...	1	...
	Other Diseases	9	...	6	...	1	...	8	2	2	...	8	...	7	...	4	1	15	3	1	...	...	...	2	1	21	2	10	...	13	3	2	...
	Total of Constitutional Group	1,252	32	654	10	609	18	970	21	537	9	825	13	1,275	27	833	23	1,781	31	488	8	161	3	295	11	1,001	23	403	12	773	29	98	...

Ratios per 1,000 of Strength.

Class I.—General Diseases. Febrile Group.	Eruptive Fevers	4·7	·27	3·8	...	2·2	...	6·6	·11	8·1	·22	4·1	...	3·0	...	12·9	...	2·3	...	1·5	...	·6	...	4·0	...	2·4	...	·5	·24	3·0	...	·9	...
	Continued ,,	24·8	·41	30·8	·24	19·5	...	19·9	·46	21·8	...	15·0	·13	37·6	...	20·7	·16	17·2	·08	12·9	·60	28·7	·62	17·6	·80	17·4	·32	15·8	·49	17·5	·13	23·5	...
	Paroxysmal ,,	4·8	...	11·9	...	7·9	...	12·0	...	20·0	...	4·5	...	4·1	...	21·9	...	4·7	...	19·5	...	12·5	...	2·8	...	3·4	...	5·1	...	3·7	...	4·7	...
	Influenza	3·3	...	6·2	...	1·0	...	1·3	...	1·5	...	2·9	...	10·7	...	10·2	...	6·1	...	22·7	...	...	...	3·2	...	17·1	...	...	...	8·9	...	...	...
	Erysipelas	1·9	·41	2·8	·24	3·2	...	1·8	·23	·9	...	·9	...	2·7	...	2·3	...	2·6	·08	2·4	...	·6	...	1·6	...	2·1	·16	1·2	...	1·5	...	..	...
	Other Diseases	·3	...	14·7	...	1·4	·20	·7	...	2·8	...	·4	...	1·1	...	·2	...	2·0	·25	·6	·30	·6	...	·8	·40	·6	·16	...	...	1·5	...	...	...
	Total of Febrile Group	39·8	1·09	70·2	·48	35·2	·20	42·3	·80	55·1	·22	27·8	·13	59·2	...	68·2	·16	34·9	·41	59·6	·90	43·0	·62	30·0	1·20	43·0	·64	22·6	·73	36·1	·13	29 1	...
Constitutional Group.	Rheumatism	46·9	...	71·4	...	39·4	...	41·1	...	46·2	...	45·6	...	51·7	...	46·7	...	60·3	·08	46·8	...	25·6	...	31·7	...	46·0	...	48·4	...	36·0	·13	22·6	...
	Syphilis	105·0	·14	71·4	...	69·4	·40	55·1	·11	58·4	...	49 3	...	151·1	...	69·0	...	73·4	·08	81·8	...	65·6	...	67.0	...	96·9	...	34·5	·24	51·0	...	63 8	...
	Scrofula, Phthisis, &c.	16·5	4·25	10·7	2·37	12·4	3·25	12·4	2·05	9·4	1·96	10·8	1·71	20·9	4·83	9·9	3·29	11·7	2·16	15·3	2·39	7 5	1·87	17·6	3·61	14·3	3·22	12·4	2·67	13·1	3·32	2·8	...
	Scurvy and Purpura	·3	...	...	...	·4	...	...	...	·2	...	·3	...	·2	...	·3	·16	·3	...	3	...	1·2	...	·4	·40	...	...	·2	...	·3	...	...	...
	Anæmia	1·9	...	·2	...	1·8	...	·9	...	2·4	...	1·7	...	3·0	...	4·1	...	·8	...	1·8	...	·6	...	·8	...	·5	16	...	...	·5	...	·9	...
	Other Diseases	1·2	...	1·4	...	·2	...	·9	·23	·4	...	1·0	...	1·2	...	·6	·16	1·2	·25	·3	...	...	...	·8	·40	3·4	·32	2·4	...	1·7	40	1·9	...
	Total of Constitutional Group	171·8	4·39	155·1	2·37	123·6	3·65	110·4	2·39	117·0	1·96	108·7	1·71	128·1	4·83	130·6	3·61	147·7	2·57	146·3	2·39	100·5	1·87	118·3	4·41	161 1	3·70	97·9	2 91	102·6	3·85	92·0	...

Eruptive Fevers.—For all Districts together the rate of prevalence of fevers of this nature (4·2 per 1,000 men) exceeds that of the preceding year by one-sixth; the increase is accounted for by the participation of the troops quartered in the Northern, and in the Chatham Districts, in the epidemic of small-pox which occurred during the year; the admissions for this fever were only 25, but the presence of the disease led to increased re vaccination, and the admissions consequent on the operation augmented the proportional prevalence of the group of eruptive fevers. Scarlet fever prevailed less than in 1875, but admissions for it occurred in every District except the Channel Islands, and the North British, its greatest prevalence was in the Southern, and in the Woolwich Districts.

Continued Fevers.—For all Districts together, the rate of admissions for fevers of this nature is 2·4 per 1,000 men lower than in the preceding year, and the rate of mortality is ·06 per 1,000 lower.

Typhus Fever.—There were two admissions for this fever, one of which took place in the Southern, the other in the Belfast District; both attacks were fatal.

Enteric Fever, caused in all 93 admissions and 18 deaths. No District was quite free from the presence of this form of continued fever, but its prevalence differed widely, being in the proportion of 4·30 per 1,000 men in the Home, of 1·93 per 1,000 in the Dublin, and of only ·26 per 1,000 in the South-Eastern; the mortality from enteric fever, however, was not in proportion to its prevalence in the various Districts, no attack of this fever proved fatal in the Home District. No epidemic outbreak occurred at any station, though in a few instances two or three attacks followed in sequence; two-thirds of all those in the Home District, were amongst the troops in London, in the last quarter of the year.

Simple Continued Fever.—The prevalence of this fever in all Districts together is in the rate of 4·07 per 1,000 men, the greatest rate of prevalence is that of the Home District; the death from it was in the Cork District.

Febricula.—The rate of admissions (for all Districts 15·16 per 1,000 men) varies from 17·42 per 1,000 men in the Northern to 10·19 per 1,000 in the North British District.

Paroxysmal Fevers.—The rate of admissions for all Districts together shows a reduction of 1·0 per 1,000 men on the rate of the preceding year; as in it, so in the present year, Woolwich shows the highest rate of prevalence, 21·9 per 1,000 men, next to it the Chatham District, 20·0 per 1,000; the lowest rate is that of the Belfast District, 2·8 per 1,000.

Influenza.—The rates of admission for this form of fever in the various Districts vary greatly from those of the preceding year; that of the North British, is more than two-fold higher, that of Chatham, on the other hand, is fourteen times lower.

Erysipelas.—For all Districts together the rate of prevalence is 2·6 per 1,000 men (nearly one-third) lower than that for the preceding year; there is a large reduction in the rates for the Eastern, Western, South Eastern, and Woolwich Districts; the Aldershot, North British, and Chatham Districts have higher rates; the rate of the Home District is the same for both years.

Rheumatism.—For all Districts together the rate of admissions is 4·9 per 1,000 men lower than in the preceding year, and every District shows a reduced rate of prevalence of this affection except Chatham, for which there is an increase of 13·6 per 1,000 men.

Syphilis.—For all Districts together the rate of admissions is ·9 per 1,000 men lower than in the preceding year; for the primary form of the disease in the present year the rate of admissions is 46·0 per 1,000 men, for the constitutional form 27·4 per 1,000. Compared with 1875 the rates of admissions for syphilis (both forms together) are higher for the Northern, South-Eastern, Chatham, Aldershot, and North British Districts, and lower for the other Districts.

In continuation of the statistical information given in the reports of previous years, the admissions for primary venereal sores at certain large stations in the United Kingdom, and their rates per 1,000 of the mean strength, are shown in the following Tables:—

Stations under the Act.

Station	Average Annual Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 of strength admitted for Primary Venereal Sores.	Ratio per 1,000 of strength admitted for Gonorrhœa.
Devonport and Plymouth	2,658	71	247	27	93
Portsmouth	5,592	151	385	27	69
Chatham, Sheerness, and Gravesend	4,588	151	282	33	61
Woolwich	5,783	241	470	42	81
Aldershot	12,055	563	901	47	75
Windsor	956	39	78	41	82
Shorncliffe	2,748	60	115	22	42
Colchester	2,631	80	190	30	72
Winchester	983	20	85	20	86
Dover	2,478	75	112	30	45
Canterbury	1,408	38	80	27	57
Maidstone	108	3	2	28	18
Cork	2,520	54	150	21	59
Curragh	4,112	76	205	18	50
Total of 14 Stations under the Act ..	48,620	1,622	3,302	33	68

Stations *not* under the Act.

Isle of Wight	1,139	61	73	54	64
London	3,735	545	366	146	98
Warley	824	42	79	51	96
Hounslow	666	50	39	75	59
Pembroke Dock	972	28	47	29	48
Sheffield	812	97	72	119	89
Manchester	1,063	120	162	113	152
Preston	819	63	86	77	105
Edinburgh	1,155	103	86	89	74
Fermoy	1,182	37	76	31	64
Limerick	802	38	41	47	51
Athlone	603	5	30	8	49
Dublin	4,062	310	459	76	113
Belfast	956	55	61	57	64
Total of 14 Stations *not* under the Act ..	18,790	1,554	1,677	82	89

United Kingdom.

Stations.	Rate of Admissions into Hospital per 1,000 of Mean Strength for Primary Venereal Sores in—									
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.*	1875.*	1876.*
Devonport and Plymouth ..	76	66	74	58	50	59	37	36	29	27
Portsmouth ..	116	86	62	51	41	40	44	48	30	27
Chatham and Sheerness ..	71	63	41	47	65	49	41	33	17	33
Woolwich ..	88	46	52	43	58	60	60	47	59	42
Aldershot ..	81	77	63	67	65	62	72	52	46	47
Windsor ..	58	136	93	67	78	96	84	63	41	41
Shorncliffe ..	42	77	60	100	30	33	21	14	18	22
Colchester ..	145	182	85	42	32	55	42	20	32	30
Winchester ..	52	104	101	61	29	57	27	38	27	20
Dover	132	111	80	30	24	47	38	37	27	30
Canterbury ..	119	114	45	152	38	43	20	36	12	27
Maidstone ..	242	122	128	68	44	57	59	66	7	28
Cork	72	61	73	68	55	62	61	26	21	21
Curragh ..	104	85	88	56	35	50	30	46	35	18
Isle of Wight ..	59	103	129	64	66	57	37	89	89	54
London ..	163	148	144	160	190	199	185	179	187	146
Warley ..	74	92	61	55	57	66	22	32	37	52
Hounslow ..	62	106	85	88	45	90	67	68	24	75
Pembroke Dock	28	35	51	54	28	27	25	21	31	29
Sheffield ..	163	107	146	77	126	98	71	49	87	119
Manchester ..	177	115	160	92	70	98	91	106	89	113
Preston ..	87	87	172	134	75	114	123	97	57	77
Edinburgh ..	63	46	60	99	69	43	44	25	27	89
Fermoy ..	70	47	116	89	33	56	21	10	12	31
Limerick ..	117	114	54	136	57	100	78	58	25	47
Athlone ..	85	38	42	44	47	14	14	8	10	8
Dublin	129	139	180	128	117	165	136	95	73	76
Belfast	89	56	52	43	61	78	103	64	44	57

* Stoppage of pay in force.

The group of 14 stations under the Act shows a reduction of 2 per 1,000 men, on the corresponding rate for the preceding year; the contrasted group of 14 stations, shows an increase of 3 per 1,000 men. *United Kingdom.*

The results obtained by a different grouping of the stations in the United Kingdom, are shown in the following table :—

Groups.	Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Rate per 1,000 of Strength of Admissions for Primary Venereal Sores.
The 14 Stations under the Contagious Diseases Act	48,620	1,622	33
All other Stations	38,073	2,416	63

No admissions for this disease are returned at 14 stations, having an aggregate mean annual strength of 986 men.

Scrofula and Phthisis.—Compared with the preceding year the rate of admissions is higher for the Northern, Home, Aldershot, and Channel Islands Districts; for the Southern District the rate is the same in both years.

Local Diseases.—*Diseases of the Nervous System.*—Compared with the preceding year, the rate of admissions is higher for all Districts, excepting the Northern, Western, Chatham, South Eastern, and Woolwich; the highest rate, that of the Eastern, is double that for 1875, this is due to the comparatively large number of admissions for epilepsy, and for convulsions.

Diseases of the Eye.—For the most part the rates of admissions in the various Districts, are in close accordance with the corresponding ones for the the preceding year; in both years the highest rate is that of the Eastern, and the lowest is that of the Home District. The greater comparative prevalence of conjunctivitis, in the first named District, accounts for its higher admission-rate.

Diseases of the Circulatory System.—The rate of admissions is higher than for the preceding year, in the Eastern, Western, Woolwich, and Channel Islands' Districts; in the North British, it is the same for both years. The rate of admissions for palpitation is 7·1 per 1,000 of the strength for all Districts together, showing a reduction of ·6 per 1,000 on the rate for the preceding year. The prevalence of this disorder varies from 8·7 per 1,000 men in the Aldershot to 1·7 per 1,000 in the North British.

Diseases of the Respiratory System.—As in the preceding year, the highest rate of prevalence is that for the Eastern District, which is nearly threefold greater than the rate of the Chatham District; the rates for the Eastern, Western, Aldershot, and North British Districts, exceed the corresponding ones for 1875. In the remaining Districts the rates are lower, in most instances much lower.

Diseases of the Digestive System.—Compared with 1875 the rates of admissions are lower in the Northern, Western, Chatham, South Eastern, Aldershot, and Channel Islands' Districts.

Diseases of the Urinary System.—Compared with the preceding year there is a lower rate of admissions for diseases of this order in the Eastern, and in the South-Eastern Districts, and a higher one in each of the remaining Districts

The admissions into hospital for gonorrhœa, at specified groups of stations in the United Kingdom, are shown in the following Table :—

United Kingdom.

Groups.	Average Annual Strength of the Group.	Admissions into Hospital for Gonnorhœa.	Rate per 1,000 of the Strength, of Admissions for Gonnorhœa.
The 14 Stations under the Contagious Diseases Act ..	48,620	3,302	68
At 14 *Large Stations* not under the Contagious Diseases Act..	18,790	1,677	89
All Stations together not under the Contagious Diseases Act (including the 14 *Large Stations*)	38,073	3,043	80

Diseases of the Cutaneous System.—Compared with the preceding year, the rates of admissions are higher for all Districts, excepting the South Eastern, Woolwich, and the Aldershot.

Poisons.—Compared with the admission rates for 1875, there is an increase in those for the Eastern, Western, Southern, South-Eastern, and Channel Islands Districts, a decrease in those for the Northern, Home, Woolwich, and for the Aldershot Districts, the rates of the Chatham, and of the North British Districts, are the same for both years. As in the preceding, so in the present year, the rate of the Woolwich District exceeds that of any other. Of the admissions for diseases in this class 138 were for delirium tremens, 134 for alcohol poisoning, and 4 for poisoning by other means.

Injuries.—*Accidental.*—The rate of admissions is higher than in the preceding year for the Northern, Eastern, Chatham, Home, Aldershot, North British, and Channel Islands Districts, and lower for the Western, Southern, South-Eastern, and Woolwich Districts.

The admissions and deaths, and the number invalided in each arm of the service, with the rates per 1,000 of the strength, and the corresponding rates for the 10 years 1865–76, are shown in the following Table :—

Arms of the Service.	Average Strength.	Admitted into Hospital.	Died in and out of Hospital.	Discharged as Invalids.	Annual ratio per 1,000 of Strength.			1866–75.—Annual Ratio per 1,000.		
					Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.
Household Cavalry	1,205	798	4	20	666·2	3·32	16·70	614·5	8·11	14·48
Cavalry	10,639	9,413	71	354	884·8	6·67	33·27	769·3	7·45	28·27
Royal Artillery	12,468	9,941	104	291	797·3	8·34	23·34	869·7	9·11	28·81
Royal Engineers	3,583	..	18	50	..	5·02	13·96	..	6·74	13·89
Foot Guards	5,349	4,345	54	106	812·3	10·09	19·82	718·1	7·59	21·92
Infantry Regiments	40,113	30,503	311	972	760·4	7·75	24·23	722·1	8·00	25·16
Depôt Brigade, R.A.	2,450	2,775	19	79	1132·7	7·76	32·25	1085·0	9·15	36·12
Coast Brigade, R.A..	1,568	..	29	6	..	18·49	3·82	..	18·13	8·23
Depôts and Brigade Depôts ..	9,358	7,780	122	418	842·1	13·04	43·51	894·4	11·75	44·29
Army Service Corps	2,846	..	24	39	..	8·43	13·70	..	9·78	12·97
Army Hospital „	1,036	..	13	21	..	12·55	20·27	..	14·45	15·50

United Kingdom.

Compared with the preceding year, the rate of admissions is lower for every arm except Household Cavalry, in which there is an increase of 26·7 per 1,000 men, Infantry, in which it is 8·4 per 1,000, and Depôt Brigade Royal Artillery, in which there is an increase of 21·2 per 1,000. The reduction in the rate of admissions for Cavalry is 22·1 ; for Royal Artillery, 48 4 ; for Foot Guards, 44·6 ; and for Depôts, 63·9. The death-rate is lower than in the preceding year for every arm excepting Cavalry, in the rate of which there is an increase of ·32 per 1,000 men ; Foot Guards, in which there is an increase of 2·37 per 1,000 ; Depôt Brigade Royal Artillery, in which there is an increase of 1·33 per 1,000 ; and Coast Brigade Royal Artillery, in which there is an increase of ·79. The reduction on the death-rate of the preceding year for Household Cavalry is 4·15 per 1,000 men, for Royal Artillery is 1·67, for Royal Engineers is 5·5, for Infantry is 1·15, for Army Service Corps is ·33, and for Army Hospital Corps is 3·59 per 1,000 men. In the last-named arm a high death-rate is a permanent feature, that of the present year does not differ greatly from the average of ten years, the explanation is perhaps to be found partly in the exposure to infectious sickness entailed on the men by the nature of their duties, partly in the relatively small amount of invaliding, and partly in the composition of the arm as to the ages of its members. Compared with the preceding year, the rate of invaliding is higher for Household Cavalry by 10·89 per 1,000 men, for Cavalry by 4·49, for Royal Artillery and Foot Guards fractionally, for Army Service Corps, 5·31, and for Army Hospital Corps, 6·97. There is a decrease on the rate of invaliding of Royal Engineers of 3·78 per 1,000 men ; for Infantry, 1·90 ; for Depôt Brigade Royal Artillery, 20·53 ; for Coast Brigade Royal Artillery, 10·33 ; and for Depôts, 10·13.

In the following Table, to the strength of each arm one-half of the number of men belonging to it who were placed on the pension list during the year has been added, and to the mortality of the arm the deaths occurring before the 31st of December among the men pensioned from it :—

	1876.			1866-75.
	Average Strength, corrected as above.	Deaths of Soldiers and Pensioners.	Ratio of Deaths per 1,000 of the Strength.	Ratio of Deaths of Soldiers and Pensioners per 1,000 of the Strength.
Household Cavalry	1,229	6	4·88	10·01
Cavalry	10,901	79	7·25	8·49
Royal Artillery	13,215	126	9·53	10·18
Foot Guards	5,514	59	10·70	9·45
Infantry Regiments	40,986	333	8·12	9·06

Compared with 1875 a higher death-rate of soldiers and pensioners combined, is seen in the instance of Cavalry and Foot Guards, a lower rate in that of each of the other arms.

The classes and orders of diseases by which the admissions, deaths, and invaliding in each arm of the service were caused, are shown in the following Tables :—

Admissions, Deaths, and Invaliding in the United Kingdom.

United Kingdom.

Order.		Household Cavalry.			Cavalry.			Royal Artillery.			Foot Guards.			Infantry Regiments.			Depôt Brigade, R.A.			Depôts.			Royal Engineers.		Coast Brigade, R.A.		Army Hospital Corps.		Army Service Corps.	
	Strength	1,205			10,639			12,468			5,349			40,113			2,450			9,358			3,583		1,568		1,026		2,84[illegible]	
	Class of Diseases.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalid[illegible]
	I. *General Diseases.*																													
1	Febrile Group...	23	...	...	423	6	...	586	6	1	333	2	...	1,434	24	...	208	...	...	434	5	1	1	...	...	...	...	...	1	...
2	Constitutional Group ...	126	2	11	1,633	23	105	1,543	37	75	1,154	21	52	4,954	109	282	363	9	14	1,103	48	116	9	12	9	1	6	7	10	15
	II. *Local Diseases.* Diseases of the—																													
1	Nervous System	10	...	1	163	11	35	140	6	38	73	6	13	495	21	126	31	2	9	180	10	44	2	7	2	1	1	2	2	3
2	Eye	7	...	...	149	...	3	180	...	7	38	...	1	777	...	38	33	...	3	160	...	16	...	3	...	1	...	...	...	...
3	Ear	...	...	1	28	...	5	36	...	6	13	...	4	175	...	12	18	...	2	44	...	8	...	...	...	...	...	...	...	...
4	Nose	1	...	...	3	...	...	2	...	...	16	...	...	36	...	1	5	...	...	6	...	...	...	...	...	...	...	...	...	...
5	Circulatory System	1	...	2	117	10	45	192	12	51	42	8	12	609	49	174	30	1	17	182	19	73	3	16	10	1	3	2	6	7
6	Absorbent ,, ...	9	...	...	188	...	1	208	...	...	63	...	1	598	...	2	20	...	...	137	...	1	...	...	...	...	...	...	...	...
7	Ductless Glands	...	...	...	1	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
8	Respiratory System	91	1	1	935	9	12	1,000	14	18	473	11	5	3,615	40	75	227	4	1	857	17	21	1	6	4	1	...	3	1	6
9	Digestive ,, ...	125	...	...	1,043	4	45	1,360	11	30	586	3	2	4,192	18	45	485	...	11	1,267	8	45	...	...	1	...	2	2	1	2
10	Urinary ,, ...	82	...	1	792	...	5	949	2	7	480	1	1	3,150	10	12	271	1	...	776	4	5	...	3	1	...	...	...	1	...
11	Generative ,, ...	9	...	...	222	...	9	158	...	2	62	...	2	427	...	2	26	...	2	84	...	3	...	...	...	...	...	...	...	1
12	Organs of Locomotion ...	4	...	1	68	1	8	80	2	9	30	...	9	205	5	36	20	1	10	47	...	20	...	1	...	...	...	...	1	...
13	Cellular Tissue	44	...	...	264	...	1	286	...	3	165	...	...	823	2	6	66	...	1	180	...	2	...	...	...	...	...	...	...	1
14	Cutaneous System	118	...	1	1,567	...	12	1,307	...	8	374	...	...	3,963	...	12	510	...	2	1,114	...	5	...	...	...	1	...	1	...	..
	III. *Conditions, &c.*																													
	Debility	6	...	...	152	...	51	143	1	15	29	...	2	447	...	119	25	...	4	141	...	46	...	1	...	...	...	3	...	3
	IV. *Poisons*	4	...	...	25	...	...	65	...	...	10	1	...	112	1	...	10	...	...	20	...	...	...	...	...	...	...	...	...	..
	V. *Injuries.*																													
1	Battle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...
2	Accidental	137	1	1	1,629	4	16	1,678	5	16	380	...	2	4,430	22	26	407	1	2	1,026	8	10	2	1	1	...	1	1	...	1
3	Homicidal	...	...	...	...	...	...	1	...	...	...	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Self-inflicted	1	...	...	1	2	...	2	5	...	...	...	...	8	7	2	...	...	...	...	2	...	...	...	1	...	...	...	1	...
5	Judicial	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...
	VI. *Surgical Operations* ...	...	...	...	3	...	...	2	...	1	4	...	...	6	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No appreciable disease ...	...	...	...	7	..	...	21	...	...	...	...	...	45	...	...	19	...	...	26	...	...	...	...	...	...	...	...	...	...
	Cause unknown	...	...	...	...	1	...	...	3	4	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	..	..
	Total	798	4	20	9,413	71	354	9,941	104	291	4,345	54	106	30,503	311	972	2,775	19	79	7,780	122	418	18	50	29	6	1	21	24	39

United Kingdom.

RATIO per 1,000 of Mean Strength.

Order.	Stations	Household Cavalry.			Cavalry.			Royal Artillery.			Foot Guards.			Infantry Regiments.			Depôt Brigade, Royal Artillery.			Depôts.			Royal Engineer.		Coast Brigade, R.A.		Army Hospital Corps.		Army Service Corps.	
	Class of Diseases.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.
	I. *General Diseases.*																													
1	Febrile Group...	19·1	...	...	39·8	·56	...	47·0	·48	·08	62·3	·41	...	35·8	·60	...	84·9	...	...	46·4	·54	·11	·28	...	...	...	...	...	·35	...
2	Constitutional Group ...	104·6	1·66	9·13	153·5	2·16	9·87	123·8	2·97	6·02	215·7	4 35	9·72	123 5	2·72	7·03	148·2	3·67	5·71	117·9	5·13	12·40	2·51	3·34	5·74	·64	5·79	6·76	3·51	5·27
	II. *Local Diseases.*																													
	Diseases of the—																													
1	Nervous System	8·3	...	·83	15·3	1·03	3·29	11·1	·48	3·05	13·7	1·24	2.43	12·3	·52	3·14	12·6	·82	3·67	19·2	1·07	4·70	·56	1·95	1·27	·64	·97	1·93	·71	1·03
2	Eye	5·8	...	...	14·0	...	·29	14·4	...	·56	7·1	...	·19	19·4	...	·95	13·5	...	1·22	17·1	...	1·71	...	·83	...	·64	...	...	...	...
3	Ear	...	...	·83	2·6	...	·47	2·9	...	·48	2·4	...	·75	4·4	...	·30	7·3	...	·82	4·7	...	·85	...	...	...	...	...	...	...	...
4	Nose	·8	...	...	·3	...	...	·2	...	...	3 0	...	...	·9	...	·02	2·0	...	...	·6	...	...	...	...	...	...	...	...	...	...
5	Circulatory System	·8	...	1·66	11·0	·94	4·23	15·4	·96	4·09	7·9	1·66	2·24	15·2	1·22	4·34	12·2	·41	6 91	19·5	2·03	7·80	·83	4·49	6·37	·64	2·90	1·93	2·11	2·46
6	Absorbent ,, ...	7·5	...	...	17·7	...	·09	16 7	...	...	15·5	...	·19	14 9	...	·05	8·2	...	...	14·6	...	·11	...	...	...	...	...	...	...	...
7	Ductless Glands	...	...	...	·1	...	·09		...	...	...	...	...		...	...	...	...	...	...	...	·11	...	...	...	...	...	...	...	...
8	Respiratory System	75·5	·83	·83	87·7	·85	1·13	80·2	1·13	1·45	88·4	2 28	·94	90·1	1·00	1·87	92·6	1·63	·41	91·6	1·82	2·24	·28	1·67	2·55	·64	...	2 90	·35	2·11
9	Digestive ,, ...	103·7	...	...	98·0	·38	4·23	109·1	·88	2·41	109·6	·62	·37	104·5	·45	1·12	193·0	...	4·49	134·3	·85	4·81	...	...	·64	...	1·93	1·93	·35	·71
10	Urinary ,, ...	68·1	...	·83	74·4	...	·47	76·1	·16	·56	89·7	·21	19	78·5	·25	·30	110·6	41	...	82·9	·43	·53	...	·83	·64	...	...	...	·35	...
11	Generative ,, ...	7·5	...	...	20·8	...	·84	12·7	...	·16	11·6	...	·37	10·7	...	·05	10·6	...	·82	9·0	...	·32	...	...	...	...	...	...	...	·35
12	Organs of Locomotion ...	3·3	...	·83	6·4	·09	·75	6·4	·16	·72	5·6	...	1·68	5·1	·12	·90	8·2	·41	4·08	5·0	...	2·14	...	·28	...	...	...	...	·35	...
13	Cellular Tissue	36·5	...	...	24·8	...	·09	22·9	...	·24	30·8	...	...	20·5	·05	·15	26·9	...	·41	19·2	...	·21	...	...	...	...	...	...	...	·35
14	Cutaneous System	97·9	...	·83	147·2	...	1·13	104·8	...	·64	69·9	...	...	98·8	...	·30	208·2	...	·82	119·1	...	·53	...	...	...	·64	...	·96	...	...
	III. *Conditions, &c.*																													
	Debility	5·0	...	...	14·3	...	4·80	11·5	·08	1·20	5·4	...	·37	11·1	...	2·96	10 2	...	1·63	15·1	...	4·92	...	·28	...	...	...	2·90	...	1·05
	IV. *Poisons*	3·3	...	...	2·3	...	...	5·2	...	...	1·9	·21	...	2·8	·03	...	4·1	...	...	2·1	...	...	...	...	...	...	...	...	...	...
	V. *Injuries.*																													
1	Battles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·6	...	...	...	...	...	...	...	...	...	...
2	Accidental	113·7	·83	·83	153·1	·38	1·50	134·6	·40	1·28	71·0	...	·37	110·5	·55	·65	166·1	·41	·82	109·7	·85	1·07	56	·28	·64	...	·97	·96	...	·35
3	Homicidal	...	...	...	...	...	...	·1	...	...	...	·21	...	...	·07	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Self-inflicted	·8	...	...	·1	·19	...	·2	·40	...	...	...	...	...	·17	·05	...	...	...	...	·21	...	...	...	·64	...	...	...	...	...
5	Judicial	...	...	...	...	...	...	·1	...	...	...	...	...	2	...	...	·4	...	·41	...	...	·11	...	...	...	...	...	...	·35	...
	VI. *Surgical Operations* ...	...	...	...	3	...	...	·2	...	·08	·8	...	...	·1	...	·05	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No appreciable disease ...	...	...	...	...	...	...	1·7	...	...	...	...	...	1·1	...	...	7·8	...	...	2 8	...	...	...	...	...	...	...	...	...	...
	Cause unknown	...	...	...	...	·09	...	...	·24	·32	...	...	...	...	...	...	...	...	...	...	·11	...	...	...	...	...	...	...	...	...
	Total	662·2	3·32	16·60	883·7	6·67	33·27	797·3	8·34	23·34	812·3	11·19	19·81	760·4	7·75	24·23	1132·6	7·76	32·25	831·4	13·04	44·67	5·02	13·95	18·49	3·84	12·56	20·27	8·43	13·71

ADMISSIONS and DEATHS. *United Kingdom.*

	Household Cavalry.		Cavalry.		Royal Artillery.		Foot Guards.		Infantry Regiments.		Depôt Brigade, Royal Artillery.		Depôts.	
Strength	1,205		10,639		12,468		5,349		40,113		2,450		9,358	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—														
Eruptive Fevers	2	..	11	4	48	..	17	2	145	5	58	..	62	..
Continued ,,	8	..	232	..	247	3	203	..	725	10	53	..	177	4
Paroxysmal ,,	..	..	33	..	219	..	7	..	189	..	73	..	131	..
Influenza	13	..	110	..	34	..	56	..	266	..	20	..	32	..
Erysipelas	..	..	25	1	30	1	16	..	61	4	3	..	11	1
Other Febrile Diseases	..	..	12	1	8	2	34	..	48	5	1	..	21	..
Total of Febrile Group	23	..	423	6	586	6	333	2	1,434	24	208	..	434	5
Constitutional—														
Rheumatism	49	..	612	..	497	..	251	..	1,764	1	123	..	416	..
Syphilis	59	..	899	..	849	1	789	..	2,638	3	213	..	501	..
Scrofula, Phthisis, &c.	16	2	98	22	150	34	94	20	485	97	24	7	151	46
Scurvy and Purpura	..	..	2	..	3	..	1	..	12	2	1	1	..	..
Anæmia	1	..	7	..	31	..	16	1	21	..	1	..	21	..
Other Constitutional Diseases	1	..	15	1	13	2	3	..	34	6	1	1	14	2
Total of Constitutional Group	126	2	1,633	23	1,543	37	1,154	21	4,954	109	363	9	1,103	48
	Annual Ratio per 1,000 of Mean Strength.													
Febrile—														
Eruptive Fevers	1·7	..	1·0	·38	3·9	..	3·2	·41	3·6	·12	23·6	..	6·6	..
Continued ,,	6·6	..	21·8	..	19·8	·24	37·9	..	18·1	·25	21·7	..	18·9	·43
Paroxysmal ,,	..	..	3·1	..	17·6	..	1·3	..	4·7	..	29·8	..	14·0	..
Influenza	10·8	..	10·3	..	2·7	.	10·5	..	6·6	..	8·2	..	3·4	..
Erysipelas	..	..	2·3	·09	2·4	·08	3·0	..	1·5	·10	1·2	..	1·2	·11
Other Febrile Diseases	..	..	1·1	·09	·6	·16	6·4	..	1·2	·12	·4	..	2·2	..
Total of Febrile Group	19·1	..	39·6	·56	47·0	·48	62·3	·41	35·7	·59	84·9	..	46·3	·54
Constitutional—														
Rheumatism	40·7	..	57·5	..	39·9	..	46·9	..	44·0	·03	56·3	..	41·5	..
Syphilis	49·0	..	84·4	..	68·1	·08	147·4	..	65·8	·07	86·9	..	53·5	..
Scrofula, Phthisis, &c.	13·3	1·66	9·2	2·07	12·0	2·73	17·6	4·14	12·1	2·42	9·8	2·85	16·1	4·92
Scurvy and Purpura	..	..	·2	..	·2	..	·2	..	·3	·05	·4	·41	..	..
Anæmia	·8	..	·7	..	2·5	..	3·0	·21	·5	..	·4	..	2 2	..
Other Constitutional Diseases	·8	..	1·4	·09	1·0	·16	·6	..	·8	·15	·4	·41	1 5	21
Total of Constitutional Group	104·6	1·66	153·4	2·16	123·7	2·97	215·7	4·35	123·5	2·72	148·2	3 67	117·8	5·13

Eruptive Fevers.—Compared with the preceding year the rate of admissions for fevers of this nature is lower for Household Cavalry, Cavalry, and Depôts, and is higher for each of the other arms given in the Table, the rate of the Depôt Brigade Royal Artillery is nearly two-fold greater.

Continued Fevers.—Compared with the preceding year the rate of admissions is higher for Household Cavalry, Cavalry, and Foot Guards, in the instance of the last-named nearly one-third higher; the rate is lower for each of the other arms, and in each considerably so.

Paroxysmal Fevers.—The rate of admissions is lower than in the preceding year for every arm, except Royal Artillery, and Depôt Brigade Royal Artillery, and Depôts.

Erysipelas.—The rate of admissions is lower than in the preceding year for every arm excepting Foot Guards, the excess of which is ·7 per 1,000 men; the rate for Cavalry is the same in both years.

Rheumatism.—Excepting in the instance of Foot Guards, in which there is an increase of 4·5 per 1,000 men, the rate of admissions is lower for every arm than in the preceding year, materially lower in most of them.

Syphilis.—Compared with the preceding year the rate of admissions is lower for Household Cavalry, Foot Guards, and Depôt Brigade Royal Artillery, but higher for each of the other arms; the reduction in the instance of Foot Guards is 42·1 per 1,000 men.

Scrofula, Phthisis, &c.—Compared with the preceding year the rate of admissions for diseases of this nature is higher for Household Cavalry by 5 per 1,000 men, for Royal Artillery by 1·4, for Foot Guards by 2·, and for Infantry by ·3. On the other hand, the rate of Cavalry is ·9, that of Depôt Brigade Royal Artillery, is 1·7, and that of Depôts is 5· per 1,000 men lower.

As the rates of mortality from diseases in this group are particularly likely to be affected by the comparative amount of invaliding on account of them, the proportions of loss from death and invaliding combined, are shown in the following Table:—

	Loss per 1,000 Men by Deaths and Invaliding combined, from Scrofula and Phthisis.
Household Cavalry	9·96
Cavalry	6·11
Royal Artillery	8·42
Foot Guards	13·09
Infantry	6·33
Depôt Brigade Royal Artillery	5·71
Depôts	21·05

Compared with the preceding year a higher rate of loss from scrofula and phthisis, &c., is shown for every arm except Infantry, but the gain in this respect is more than balanced by the very large increase, 8·09 per 1,000 men, in the rate for Depôts.

Local Diseases.—*Diseases of the Nervous System.*—In a comparison between the results of the present and of the preceding year, in respect of admissions for diseases of this order, the most noticeable feature is that of the evenness of the rates for the various arms in the two years, omitting from the comparison those the strength of which is inconsiderable; thus the rates for Royal Artillery Infantry, and for Depôts, differ only fractionally, whilst those

for Cavalry, and for Foot Guards, are not materially different; there is however a large decrease, 10·8 per 1,000 men, in the rate for Depôt Brigade Royal Artillery. *United Kingdom.*

Diseases of the Eye.—Compared with the preceding year, there is a reduction on the rate for Household Cavalry, Foot Guards, Infantry, and for Depôts; each of the other arms shows an increase, but in no instance a large one.

Diseases of the Circulatory System.—Compared with the preceding year, the rate of admissions is lower for every arm, excepting Household Cavalry, the rate for which is the same in both years; for Royal Artillery the reduction is fractional only, but for each of the other arms it is important, being for Cavalry, 3·9, for Foot Guards and Infantry, 2·1, for Depôt Brigade Royal Artillery, 13·9, and for Depôts, 9·1 per 1,000 of the strength respectively.

Diseases of the Respiratory System.—There is an important reduction in the rate of every arm on that of the preceding year, excepting in Depôt Brigade Royal Artillery, which shows an increase of 7·7 per 1,000 men.

Diseases of the Digestive System.—Compared with the preceding year, there is a reduction in the rate of admissions for every arm excepting Foot Guards and Depôt Brigade Royal Artillery; the increase for the first named is 15·0, and that for the latter is 34·0 per 1,000 men.

Diseases of the Urinary System.—The rate of admissions for diseases of this order is higher than that for the preceding year for Household Cavalry, Royal Artillery, Foot Guards, Infantry, and for Depôts.

Injuries.—*Accidental.*—The rate of admissions for accidental injuries is higher than that of 1875 for Cavalry, and for Infantry, but is lower for each the other arms.

The admissions, deaths, invaliding, and the number of daily sick in each corps which served in the United Kingdom in 1876, are shown in the following Table:—

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average Number Daily Sick.	Annual Ratio per 1,000 of Strength.				Average Sick time to each Soldier.	Average duration of each Case of Sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
1st Life Gds.	400	236	1	..	1	7	10·19	588·5	2·49	17·45	25·41	9·30	15·76	London; det. at Hampton Court.
2nd ,,	407	221	1	1	2	10	10·53	543·0	4·91	24·57	25·87	9·70	17·39	London, Windsor, Camp of Exercise.
R. Horse Gds.	398	341	..	1	1	3	12·67	856·8	2·51	7·54	31·58	11·63	13·56	Windsor, London.
Total of Household Cavalry	1,205	798	2	2	4	20	33·39	666·2	3·32	16·70	27·71	10·11	15·27	
1st Dn. Gds.	598	517	3	1	4	14	24·80	864·5	6·69	23·41	41·47	15·13	17·51	Edinburgh and Manchester; dets. at Hamilton, Liverpool, and Bury.
2nd ,,	505	323	6	..	6	6	15·25	639·6	11·88	11·88	30·20	11·02	17·23	Newbridge, Curragh, and Cahir; dets. at Fethard, Waterford, &c.
3rd ,,	519	408	..	..	..	23	20·65	786·1	..	44·31	39·79	14·52	18·47	Longford, Curragh, and Dublin; dets. at Athlone, Cavan, Carlow, &c.
4th ,,	615	371	5	..	5	10	17·75	603·2	8·13	16·26	28·86	10·53	17·47	Dublin, Dundalk, dets. at Belfast and Belturbet.
5th ,,	606	413	1	..	1	4	14·10	681·5	1·65	6·60	23·27	8·49	12·46	Cahir and Ballincollig; dets. at Waterford, Cork, Fermoy, &c.
6th ,,	605	662	..	1	1	27	31·62	1094·2	1·65	44·63	52·26	19·08	17·43	Norwich and York; dets. at Ipswich and Colchester.
7th ,,	504	263	4	2	6	14	11·50	521·6	11·90	27·78	22·83	8·33	16·00	Ballincollig and Newbridge; dets. at Cork, Limerick, Curragh, &c.
1st Dragoons	615	458	6	1	7	13	24·80	744·8	11·38	21·14	40·32	14·70	19·74	York and Norwich; dets. at Ipswich and at Colchester.
2nd ,,	600	583	6	4	10	9	33·92	971·7	16·66	15·00	56·53	20·63	21·24	Brighton, Leeds, and Camp of Exercise; dets. at Woolwich, &c.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
5th Lancers	526	515	2	..	2	38	21·54	979·1	3·80	72·24	40·95	14·95	15·27	Aldershot, Camp of Exercise.
6th Dragoons	523	456	4	..	4	10	23·27	871·9	7·65	19·12	44·49	16·24	18·63	Dundalk and Dublin; dets. at Belfast and Belturbet.
7th Hussars	517	550	3	2	5	26	28·00	1063·8	9·67	50·29	54·16	19·77	18·58	Manchester, Edinburgh; dets. at Liverpool, and at Hamilton.
8th „	606	565	..	..	..	20	21·02	932·2	..	33·00	34·69	12·66	13·58	Aldershot.
12th Lancers	605	474	2	1	3	31	22·51	783·5	4·96	51·24	37·21	14·67	18·73	Shorncliffe.
17th „	613	783	3	..	3	9	34·43	1277·3	4·89	14·68	56·17	20·50	16·05	Dublin, Aldershot, Camp of Exercise.
18th Hussars	502	737	3	..	3	67	34·50	1468·1	5·98	133·47	68·72	25·10	17·09	Colchester.
19th „ *	503	355	2	1	3	11	18·62	705·8	5·96	21·87	37·02	13·51	19·14	Leeds, Longford, and Curragh; dets. at Bury, Preston, Gort, &c.
20th „	516	465	3	..	3	13	21·66	901·2	5·81	25·19	41·97	15·32	17·00	Hounslow, Brighton; det. at Hilsea.
21st „	513	500	3	2	5	9	25·77	974·6	9·74	17·54	50·23	18·33	18·81	Aldershot, Hounslow; det. at Kensington.
Riding Establishment	48	15	..	..	..	..	·79	312·5	..	..	16·46	6·01	19·22	Canterbury.
Total of Cavalry of the Line	10,639	9,413	56	15	71	354	446·50	884·8	6·67	33·27	41·97	15·32	17·31	

* From 19th January to 31st December.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died. In Hospital.	Died. Out of Hospital.	Died. Total.	Invalided.	Average Number daily Sick.	Annual Ratio per 1,000 of Strength. Admitted.	Annual Ratio per 1,000 of Strength. Died.	Annual Ratio per 1,000 of Strength. Invalided.	Annual Ratio per 1,000 of Strength. Daily Sick.	Average Sick-time to each Soldier.	Average Duration of each case of Sickness.
												Days.	Days.
A Brigade, Royal Horse Artillery ..	26	33	1	..	1	..	·91	1269·2	38·46	..	35·00	12·77	10·07
*B „ „ „ ..	400	269	..	1	1	10	13·37	672·5	2·50	25·00	33·42	12·22	18·63
D „ „ „ ..	767	494	2	..	2	22	30·19	644·1	2·61	28·68	39·36	14·37	22·31
E „ „ „ ..	760	728	4	..	4	12	38·62	958·0	5·26	15·79	50·82	18·55	19·36
Riding Establishment	230	194	..	..	..	1	8·23	839·1	..	4·35	35·79	13·06	15·56
1st Brigade, Royal Artillery	884	1,028	5	2	7	31	‖	1162·9	7·92	35·07	‖	..	..
†2nd „ „	104	81	..	..	..	1	4·73	778·8	..	9·62	45·48	16·60	21·31
3rd „ „	898	539	3	2	5	16	21·00	600·2	5·57	17·82	23·39	8·53	14·22
10th „ „	919	565	6	1	7	15	27·23	614·8	7·62	16·32	29·63	10·81	17·60
14th „ „	1,062	856	5	1	6	23	44·73	806·0	5·65	21·66	42·12	15·38	19·07
15th „ „	843	646	9	4	13	8	25·55	766·3	15·42	9·48	30·31	10·93	14·27
16th „ „	1,083	845	8	..	8	23	36·60	780·1	7·39	21·24	33·80	12·34	15·80
18th „ „	969	926	8	3	11	12	31·42	955·6	11·35	12·38	32·43	11·86	12·38
‡21st „ „	47	17	1	..	1	..	·29	361·7	21·28	..	6·17	2·25	6·22
§22nd „ „	810	402	6	5	11	15	22·60	496·3	13·58	18·52	27·90	10·18	20·52
23rd „ „	631	619	9	3	12	13	23·25	981·0	19·02	20·60	36·85	13·45	13·71
24th „ „	1,057	810	5	1	6	50	41·99	766·3	5·68	47·30	39·73	14·50	18·92
25th „ „	978	889	7	2	9	39	41·13	909·0	9·20	39·88	42·06	15·35	16·89
Total Royal Artillery	1,2468	9,941	79	25	104	291	411·84	797·3	8·34	23·34	35·55	12·98	16·86

* 1st January to 13th October. † 13th September to 31st December. ‡ 1st to 20th January. § 1st January to 12th December.
‖ Returns incomplete.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average Number daily Sick.	Annual Ratio per 1,000 of Strength.				Average Sick-time to each Soldier.	Average Duration of each case of Sickness.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily Sick.	Days.	Days.
Royal Engineers:—													
Glasgow	84	46	..	..	..	..	2·40	641·4					
Aldershot	791	562	2	..	2	21	31·66						
Chatham	1,332	858	5	4	9	18	37·69		5·70	17·10	31·39	11·46	17·92
Cork	121	51	2	..	2	1	1·53						
Shornoliffe	58	24	..	1	1	1	1·03						
Curragh	71	35	..	..	..	1	2·80						
Devonport (not taken)	..	..	..	..	..	..	..						
Total of Companies of Royal Engineers from which Returns have been received	2,457	1,576	9	5	14	42	77·11						

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
Foot Guards:												Days.	Days.	
Gren. Gds.,														
1st Bn. ..	776	658	9	4	13	7	31·63	847·9	16·75	9·02	40·77	14·88	17·54	Dublin and London.
2nd Bn. ..	780	625	2	..	2	8	31·50	801·3	2·56	10·26	40·38	14·74	18·39	London, and Camp of Exercise.
3rd Bn. ..	777	770	9	2	11	13	40·76	991·0	14·16	16·73	52·46	19·15	19·24	London.
Coldm. Gds.,														
1st Bn. ..	773	634	4	1	5	26	30·25	820·2	6·47	33·63	39·13	14·29	17·34	London and Shorncliffe; det. at Warley.
2nd Bn. ..	781	519	7	3	10	14	38·25	664·5	12·80	17·92	48·97	17·88	26·90	London, Aldershot, and Windsor; det. at Warley.
Scots F. Gds.,														
1st Bn. ..	733	584	6	1	7	21	27·19	796·7	9·55	28·65	37·09	13·54	17·00	Windsor, London, and Shorncliffe; dets. at Warley, and at Aldershot.
2nd Bn. ..	729	555	4	2	6	17	30·11	761·3	8·23	23·32	41·30	15·08	19·80	London and Windsor; dets. at Warley, and at Aldershot.
Total of Foot Guards ...	5,349	4,345	41	13	54	106	229·69	812·3	10·09	19·82	42·94	15·67	19·29	
Infantry:														
1st Foot, 1st Bn.	502	411	6	..	6	7	15·07	819·1	11·95	13·94	30·02	10·96	13·38	Fort George, and Mullingar; dets. at Ballater, Dundee, and Dublin.
2nd Foot, 2nd Bn.	677	562	2	..	2	24	30·62	830·1	2·95	35·16	45·23	16·51	19·89	Dublin and Aldershot.

3rd Foot, 2nd Bn.*	466	312	5	..	5	17	16·76	669·8	10·73	36·48	35·99	13·13	19·61	Mullingar.
4th Foot, 2nd Bn.	529	361	..	1	1	7	14·00	680·5	1·89	13·23	26·65	9·66	14·15	Athlone and Curragh; dets. at Castlebar, Ballina, Ballinrobe and Westport.
5th Foot, 2nd Bn.	753	453	4	2	6	19	20·44	601·6	8·00	25·23	27·14	10·04	16·42	Aldershot and Woolwich; det. at Purfleet.
6th Foot, 2nd Bn.	619	423	3	1	4	11	20·44	683·4	6·46	17·77	33·02	12·05	17·64	Aldershot and Dover.
7th Foot, 1st Bn.	579	676	2	1	3	19	23·66	1167·5	5·18	32·80	40·85	14·91	12·77	Dover, Colchester, and Dublin.
8th Foot, 2nd Bn.	775	675	4	..	4	22	27·63	871·0	5·16	28·39	35·65	13·01	14·94	Fermoy, Aldershot.
9th Foot, 1st Bn.	542	439	7	1	8	32	21·28	810·0	14·76	59·04	39·26	14·33	17·69	Aldershot and Colchester.
10th Foot, 2nd Bn.	568	449	1	1	2	29	20·46	790·5	3·52	51·06	36·02	13·15	16·63	Aldershot and Dover.
11th Foot, 2nd Bn.	746	565	4	..	4	19	28·25	757·4	5·36	25·48	37·87	13·82	18·25	Aldershot.
12th Foot, 1st Bn.†	505	474	1	..	1	15	16·76	938·6	1·98	29·70	33·19	12·11	12·91	Cork; dets. at Youghal and at Bandon.
13th Foot, 2nd Bn.	677	587	1	1	2	21	29·18	867·1	2·95	31·02	43·10	15·73	18·11	Glasgow, Aldershot; det. at Stirling.
14th Foot 2nd Bn.	509	502	1	2	3	14	25·90	986·2	5·89	27·50	50·88	16·61	18·83	Plymouth, Belfast, Camp of Exercise; det. at Carrickfergus.
15th Foot, 1st Bn.	602	427	2	2	4	9	19·16	709·3	6·63	14·95	31·83	11·62	16·38	Aldershot and Sheffield; det. at Tynemouth.
16th Foot, 1st Bn.	572	408	4	..	4	13	19·00	713·3	6·99	22·73	33·22	12·12	17·00	Aldershot, Gosport.
16th Foot 2nd Bn.‡	76	39	..	..	..	..	2·00	513·1	..	..	26·31	9·60	18·72	Chatham.
17th Foot, 2nd Bn.§	570	345	..	..	..	15	17·30	605·3	..	26·32	30·35	11·08	18·30	Curragh and Templemore.

* From 1st January to 1st October.
† From 1st January to 21st September.
‡ From 1st to 31st January.
§ From 1st January to 4th October.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
18th Foot, 2nd Bn.	576	531	5	4	9	22	20·55	921·9	15·62	38·19	35·68	13·02	14·12	Colchester and Fermoy; dets. at Tralee, Queenstown, and Mitchelstown.
19th Foot, 1st Bn.	625	506	9	..	9	14	22·76	809·6	14·40	22·40	36·42	13·30	16·42	Sheffield, Aldershot; det. at Tynemouth.
20th Foot, 2nd Bn.	557	586	7	..	7	28	28·23	1052·1	12·57	50·27	50·68	18·50	17·58	Manchester, Aldershot.
21st Foot, 2nd Bn.	537	414	2	2	4	20	20·30	771·0	7·45	37·25	37·80	13·76	17·90	Portsmouth, and Forts.
22nd Foot, 1st Bn.	537	289	5	..	5	12	12·23	538·2	9·29	22·35	22·77	8·31	15·45	Fleetwood; dets. at Isle of Man, and Liverpool.
23rd Foot, 1st Bn.	573	362	5	3	8	8	18·05	631·8	13·96	13·96	31·50	11·50	18·20	Cork and Dublin; dets. at Fort Camden, Youghal, and Bantry.
24th Foot, 2nd Bn.	590	433	2	1	3	9	16·33	733·9	5·08	15·25	27·68	10·10	13·77	Dover.
25th Foot, 2nd Bn.*	400	196	1	..	1	5	9·64	490·0	2·50	12·50	24·10	8·79	17·95	Shorncliffe.
26th Foot ..	577	398	5	1	6	2	23·28	689·8	10·40	3·47	40·70	14·73	21·43	Portsmouth, Glasgow; det. at Maryhill.
27th „ †..	710	466	4	..	4	12	22·04	656·3	5·63	16·90	31·04	11·33	17·26	Enniskillen, Belfast, &c.
29th „ ..	618	382	2	1	3	7	15·02	618·1	48·38	11·33	24·30	8·87	14·35	Jersey, Chatham, and Camp of Exercise.
30th „ ..	632	514	4	..	4	7	23·26	813·3	6·33	11·08	36·80	13·43	16·52	Chester, and Chatham.
31st „ ‡..	321	223	1	2	3	5	10·13	693·1	9·35	15·58	31·56	11·52	16·58	Portland, and Camp of Exercise.
36th „ ..	665	463	5	1	6	22	24·73	696·2	9·02	33·08	37·19	13·57	19·49	Devonport, and Camp of Exercise.
37th „ ..	572	481	4	1	5	11	22·90	840·9	8·74	19·23	40·03	14·61	17·38	Gosport; det. at Portland.
38th „ ..	593	579	3	..	3	13	26·75	976·4	5·06	21·92	45·11	16·69	16·86	Fort Rowner, Manchester, Camp of Exercise; dets. at Gosport Forts.

41st	„ ..	575	408	3	..	3	19	14·71	709·6	5·22	33·04	25·58	9·34	13·16	Shorncliffe and Pembroke; dets. at Portland, Brecon, &c.
46th	„ §..	478	274	4	..	4	8	14·81	573·2	8·37	16·74	30·98	11·31	19·73	Limerick; dets. at Clare Castle and Camden Fort.
47th	„ ..	583	491	3	1	4	8	22·38	842·2	6·86	48·03	38·39	14·01	16·64	*Aldershot, Jersey.
49th	„ ..	530	357	4	1	5	19	14·67	673·6	9·43	35·85	27·68	10·10	15·00	Isle of Wight, Portsmouth, Camp of Exercise.
50th	„ ..	554	235	3	1	4	2	9·23	424·2	7·22	3·61	16·66	5·92	14·34	Birr, Curragh, and Kinsale; dets. at Nenagh, Camden Fort, and Bantry.
52nd	„ ..	574	449	4	1	5	9	26·76	782·2	8·71	15·68	46·62	17·02	21·75	Portsmouth, Plymouth, and Camp of Exercise.
53rd	„ ..	570	415	8	..	8	3	10·00	728·1	14·04	5·26	17·54	6·40	8·80	Templemore, Curragh, Birr; dets. at Carlisle Fort, Tralee, Roscrea, &c.
58th	„ ..	584	446	..	1	1	12	25·82	763·7	1·71	20·55	44·21	16·13	21·13	Gosport, Aldershot Camp of Exercise.
60th	„ 3rd Bn.	631	374	5	..	5	19	16·11	592·7	7·92	30·11	25·53	9·32	15·72	Chatham, Winchester; dets. at Sheerness, Woolwich, and Marchwood.
60th	„ 4th „ ‖	600	631	3	1	4	12	17·00	1051·7	6·67	20·00	28·33	10·32	9·83	Dublin and Fermoy; dets. at Haulbowline, &c.
61st	Foot ..	636	586	3	1	4	8	27·00	921·4	6·29	12·58	42·45	15·50	16·82	Guernsey, Aldershot; det. at Alderney.
64th	„ ..	578	549	6	1	7	14	24·07	949·8	12·11	24·22	41·64	15·20	16·00	Portsmouth, Aldershot.
75th	„ ..	523	284	1	..	1	12	13·19	543·0	1·91	22·94	25·20	9·20	16·95	Newry and Curragh; dets. at Belfast, Monaghan, and Drogheda.
76th	„ ¶..	425	250	2	1	3	17	13·41	588·2	7·06	40·00	31·55	11·52	19·58	Chatham.
77th	„ ..	558	432	2	..	2	10	12·26	774·2	3·58	17·92	21·97	8·02	10·36	Woolwich and Cork; dets. at Kinsale, Carlisle Fort, Youghal, and Waterford.
78th	„ ..	581	228	3	..	3	4	8·96	392·4	5·16	6·88	15·42	5·63	14·38	Dover, Edinburgh.
79th	„ ..	564	436	5	3	8	14	22·76	773·0	14·18	24·82	40·19	14·73	19·06	Edinburgh, Fort George; dets. at Greenlaw, Glasgow, Ballater, and Dundee.
82nd	„ ..	563	287	..	1	1	3	11·57	509·8	1·78	5·33	20·55	7·50	14·71	Buttevant; dets. at Cork, Tralee, and Mitchelstown.
84th	„ ..	584	471	8	2	10	12	23·19	806·5	17·12	20·55	39·71	14·50	17·98	Aldershot and Preston.
86th	„ ..	533	343	4	1	5	12	15·63	643·5	9·37	22·51	29·32	10·70	16·63	Fermoy and Curragh.

* From 28th March to 31st December.
† From 1st January to 17th November.
‡ From 3rd May to 31st December.
§ From 1st January to 20th October.
‖ From 1st January to 1st November.
¶ From 11th April to 31st December.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Rate per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
88th Foot ..	677	618	16	3	19	23	24·07	912·9	28·06	33·97	35·55	12·98	14·22	Preston and Curragh; dets. at Athlone, Castlebar, Boyle, &c.
90th „ ..	539	450	3	..	3	5	20·00	834·9	5·56	9·28	37·10	13·54	16·22	Dublin and Limerick; dets. at Clare Castle, &c.
91st „ ..	510	402	7	1	8	7	17·78	788·2	15·69	13·72	34·86	12·72	16·14	Curragh, Enniskillin.
93rd „ ..	510	413	1	..	1	10	14·38	809·8	1·98	19·80	28·20	10·29	12·71	Shorncliffe and Dublin.
94th „ ..	591	365	3	2	5	10	14·33	617·6	8·46	16·92	24·25	8·85	14·33	Belfast, Newry; dets. at Drogheda, Monaghan, Trim, Navan, and Newtownards.
95th „ ..	573	425	..	1	1	9	16·90	741·7	1·75	15·71	29·49	10·77	14·51	Pembroke and Cork; dets. at Newport, and Carlisle Fort.
96th „ ..	580	607	1	..	1	22	25·87	1046·5	1·72	37·93	44·60	16·28	15·56	Colchester, Aldershot.
99th „ ..	588	335	6	1	7	7	13·40	569·7	11·90	11·90	22·79	8·33	14·60	Curragh and Kilkenny; dets. at Clonmel, Waterford, &c.
100th „ ..	776	753	1	..	1	14	30·14	970·4	1·29	18·04	38·84	14·18	14·61	Kilkenny; dets. at Waterford, Clonmel, Carrick-on-Suir, Dungarvon, and Dublin; Aldershot, Camp of Exercise.
102nd „ *..	191	99	1	1	2	5	6·54	518·3	10·47	26·18	34·24	12·50	24·11	Portland; dets. at Marchwood and Weymouth.
103rd „ ..	567	366	5	..	5	15	24·50	645·5	8·82	26·45	43·21	15·77	24·43	Devonport and Templemore; det. at Spike Island.
104th „ ..	562	464	2	1	3	9	23·15	825·6	5·34	16·01	41·19	15·03	18·21	Dover and Guernsey.
105th „ ..	544	501	4	2	6	21	25·11	920·9	11·03	38·60	46·16	16·85	18·29	Aldershot and Colchester.
106th „ ..	545	521	8	..	8	12	26·32	956·0	14·68	22·02	48·29	17·63	18·44	Aldershot and Chester; dets. at Weedon, Liverpool, and Isle of Man.
107th „ ..	575	472	6	..	6	33	22·53	820·9	10·43	57·39	39·18	14·30	17·42	Parkhurst; dets. at Cowes, and at Sandown.

Rifle Brig., 1st Bn.	684	480	3	1	4	9	23·42	715·0	5·85	13·16	34·24	12·35	17·28	Manchester and Dublin; det. at Curragh.
Rifle Brig., 3rd Bn.	527	346	5	...	5	34	15·86	656·5	9·49	64·52	30·09	10·99	16·73	Chatham and Shorncliffe.
Total of Infantry Regiments	40,113	30,503	254	57	311	972	1371·94	760·4	7·75	24·23	34·20	12·48	16·42	
Depôts and Brigade Depôts	9,358	7,780	122			418	361·30	842·1	13·04	43·51	38·61	14·09	16·95	
Depot Brig. R. Artillery:														
1st Division.	728	694	2	..	2	79	27·21	1132·7	7·76	32·25	46·24	16·88	14·90	
2nd „ .	1,722	2,081	15	2	17		86·08							
Total..	2,450	2,775	17	2	19	79	113·29							

* From 1st January to 15th April.

United Kingdom. The health results in troops which returned from India during the year, are grouped separately in the following Table (all arms being combined):—

Strength.	Admitted.	Died.	Invalided.	Average number constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each Case of Sickness.
					Admitted.	Died.	Invalided.	Daily Sick.		
									Days.	Days.
1,928	1,688	14	122	80·99	875·5	7·26	63·28	42·01	15·33	17·51

Relation of the Prevalence of Sickness to Age.

The admissions into hospital at different ages, and the rates per 1,000 of the strength, are shown in the following Table:—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Admitted into Hospital.	Strength	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.
	15,031	13,221	29,525	27,630	15,717	10,622	9,598	4,848	12,458	6,061	3,861	2,814
Rate per 1,000 of Strength	879·6		954·1		676·5		505·1		486·5		728·8	

Except in one important particular, the rates in the present year are in very close accordance with the corresponding ones for 1875; the nonconformity is in the group of ages under 20, which gave the highest rate of admissions in the preceding year, but in the present year gives only the second highest.

Vaccination.

The following Table shows the condition as to vaccination of recruits found fit for the service on primary inspection by Army Medical Officers. No information is available respecting those primarily inspected by Civil Medical Practitioners:—

	Number of Recruits found fit for the Service.	Ratio per 1,000.
Had marks of vaccination	20,437	916·4
Had marks of smallpox	1,138	51·0
Had neither marks of vaccination nor smallpox	727	32·6
Total	22,302	1,000·0

The proportions under the different heads correspond very closely with those of last year. There is a slight increase in the ratio of recruits with marks of vaccination, and a decrease in those with neither marks of vaccination nor smallpox. *United Kingdom.*

The following Table, compiled from the monthly vaccination returns, shows the number of soldiers vaccinated during the year, with the proportions per 1,000 of successful vaccinations and failures, when vaccinated with fresh or preserved lymph :—

	Fresh Lymph.		Preserved Lymph.	
	No. of Cases.	Ratio per 1,000.	No. of Cases.	Ratio per 1,000.
A perfect vaccine vesicle	4,717	455·4	5,346	309·6
A modified ditto	4,400	424·8	6,432	372·4
A failure	1,241	119·8	5,491	318·0
	10,358	1000·0	17,269	1000·0

The large increase in the number of vaccinations is due to the enlistment of a greater number of recruits. There is an increase in the proportion of perfect vesicles among those vaccinated with fresh lymph, and an increase in the proportion of perfect vesicles and failures among those vaccinated with preserved lymph.

HOME STATIONS.

SANITARY REPORT.

Aldershot.

Surgeon-General Grant reports, that "in a sanitary point of view, there have been no defects to call for any particular notice; suggestions were, however, made in the estimates for some additions and improvements. The conservancy of the camp and barracks is well attended to.

"The following sanitary improvements are in course of execution, and will be completed early in the current year:—The reconstruction of waste water pipes from sinks to sewer; addition of six water-closets to hospital huts, North Camp; and the ventilation of soil pipes.

"If the admissions which took place in the month of July, during the mobilization of the 2nd Army Corps, be included, the total admissions will be 11,130, which are then less than in 1875, and calculated from this mean strength, the millesimal ratio is as follows :—

	1875.	1876.
Admissions	902·1	844·7
Death from all causes	6·7	6·0
Constantly sick	52·5	43·0
Mean duration to each man	13·0	14·2
Invalids	39·4	35·3

"This epitome represents almost all that may be said regarding the health of the troops; the past year contrasts favourably with 1875 in the three first and last headings.

"One admission for smallpox occurred in a man of the Royal Engineers; the patient bore distinct marks of vaccination and re-vaccination; the disease was so mild in form that comment is unnecessary.

United Kingdom.

"*Accommodation.*—The Permanent Barracks are occupied by the Royal Horse Artillery, Field Batteries, and three Cavalry and three Infantry Regiments.

"The Huts, South Camp, are occupied by the Royal Engineers, Army Service Corps, Army Hospital Corps, and four Regiments of Infantry.

"The Huts, North Camp, are occupied by four Regiments of Infantry.

"There has been no overcrowding; the average number occupying each hut has been 15. The situation of the huts, their structure, mode of ventilation, condition and general surroundings render them ill adapted for permanent quarters for troops.

"The Hospital accommodation is sufficient; for a short time in the summer, a few marquees have to be brought into use for trivial cases.

"The *water supply* has been good and abundant in the Permanent Barracks, in the Huts, South Camp, from reservoirs and wells, and in the North Camp from wells only.

"*Ablutions.*—Water is laid on by pipes in the South Camp and Permanent Barracks; in the North Camp from wells. It has been recommended that hot water be laid on, and also an additional bath to each ablution room provided; this has been under consideration for some time.

"The *Rations* are good; bread and meat only are now supplied from the Commissariat; since the 1st April the other things necessary for messing have been obtained by contract regimentally.

"*Cooking.*—Dean's patent is in use; the dinners are varied,—baked, stewed and soups.

"*Clothing.*—Good and suitable; no change during the year.

"The *Gymnasium* is attended compulsorily by young officers and soldiers; also well attended voluntarily.

"Medical Officers speak of it favourably, and of the beneficial results to recruits.

"The *Latrines* are on Jennings' principle in the Permanent Barracks and South Camp, on the dry-earth system in the North Camp.

"The station sustains its character for health and salubrity, more so than most parts of England."

Eastern District.

Deputy Surgeon-General Best reports, "that in the early months, when, as usually observed, cold easterly winds, not unfrequently accompanied by snow, sleet or rain, prevailed, there was a good deal of sickness, though not of a very serious nature, chiefly from sore throats, bronchial affections, and rheumatism; otherwise the general health of the troops was very satisfactory, and the same remark applies to the married families, with the exception of a rather severe outbreak of measles among children, at Warley, in the month of June. In last year's report allusion was made to troops, arriving at home from India in the depth of winter, being sent to such exposed stations as Colchester and Warley, and further experience only tends to confirm the opinion then given, viz., the desirability, if practicable, of quartering them in more sheltered localities, until the summer season has fairly set in. With regard to barracks, hospitals, and subsidiary buildings, the accommodation has been all that could be desired, and their sanitary condition has been carefully attended to. There is still, however, much need of better accommodation at Norwich and Great Yarmouth for the families of married soldiers. At the latter station, also, the drainage is defective, and must continue to be so as the barracks are now situated. I would again advocate the introduction of the dry-earth system into the Camp at Colchester, the present method being objectionable and more or less insanitary. The results of an analysis of the well water in the Camp, in the early part of the year, were not so satisfactory as could be desired. Sanitary precautions were therefore at once carried out; it may, however, be mentioned that no sickness traceable to the use of this water had been previously observed, nor has any been noted since.

"The following are among the most noteworthy sanitary works and improvements that have been carried out during the past year:—

"*Colchester, Cavalry Barracks.*—Large sized ventilating grates have been substituted throughout the right wing for the old pattern stove, and have given satisfaction. *United Kingdom.*

"Sundry additions and alterations have been made to the drainage, &c., by ventilation under various points noted in W. O. Memo. on subject of prevention of escape of sewerage gas into buildings; improved water supply for officers' quarters, staff sergeants' quarters and canteen; the wastes from all sinks in the barracks now discharge into the open air, and ventilation has been provided for soil pipes throughout the men's barracks and officers' quarters.

"*Artillery Barracks.*—Paved beats have been provided for sentries. Properly trapped sinks have replaced the basins in the passages of officers' quarters.

"*Camp Huts.*—In D Lines a covered space has been provided for parading under in wet weather; ventilation has been provided to the drains at the infants' school and hospital.

"*Warley.*—In all the barrack-rooms additional windows—a great improvement as regards both light and ventilation—have been provided.

"More accommodation has been provided for troops in the barracks by converting the old canteen into four and the old gymnasium into three rooms.

"A commodious canteen has been provided by utilizing a detached house, formerly officers' mess.

"Additional baths, ablution rooms, cells, latrines and urinals have been provided.

"*Ipswich.*—Ventilating shafts have been attached to the stables and a washstand for private ablution has been provided for the use of the men of the Royal Artillery.

"As usual, venereal disease has contributed largely to the general amount of sickness. I am not, however, aware that it is on the increase; and it is satisfactory to be again able to report most favourably upon the salutary effect of the Contagious Diseases Act at Colchester, the only station in the District where it is in operation. A very good account can be given of the advantages derived from the well-conducted course of gymnastic training at Colchester and Warley, more especially observable among young soldiers and recruits."

South-Eastern District.

Deputy Surgeon-General Watt reports:—

"The health of the troops in the South-Eastern District during the year 1876 has been very satisfactory. They have enjoyed a remarkable immunity from diseases of an infectious nature; only three cases have occurred, viz., one of scarlet fever, and two of measles.

"Several cases of smallpox have been reported among the civil population at various places in the district, but none have occurred among the military.

"A few cases of scarlet fever appeared among the children of soldiers at Newhaven in the early part of the year; measles also prevailed among the children at Chichester, and to a considerable extent among those at Dover. Nearly all the patients, however, made a good recovery.

"Medical officers continue to report the beneficial influence of gymnastic training on those who have passed through a course. They unanimously record their opinion that the physique and muscular development of the men are much improved thereby.

"The Contagious Diseases Acts are in operation at four stations. There has been a decrease of primary syphilis at Dover; also of gonorrhœa at Dover, Canterbury, and Maidstone; an increase of primary syphilis at Canterbury and Maidstone, and of both affections at Shorncliffe. The increase at the latter place can probably be accounted for by the fact that many of the cases were from regiments (such as the Foot Guards) which came from unprotected stations. I must reiterate my opinion that these enactments exercise a salutary influence on the health of the soldier, a view in which I am supported by nearly all the medical officers in the Command.

United Kingdom.

"The following remarks are applicable to individual stations in the South-Eastern District:—

"*Dover.*—With regard to the recommendations alluded to in previous Reports as to the necessity for providing accommodation for infectious diseases among soldiers, a women's hospital, and quarters for the Army Hospital Corps, I would again strongly urge their provision.

"I have recommended that porches should be provided for the doors of the hospital huts, Western Heights, to prevent the rain beating into the passages; it is also desirable that these huts should be fitted with shelves for the patients' clothing.

"*Shorncliffe.*—The same remarks apply to this station as to Dover, relative to the provision of an infectious hospital for women and children. No steps have yet been taken for the erection of a suitable building for this purpose.

"During the year improvements have been effected in the main drainage of the Camp; new barracks have been erected, and a new latrine has been added to the Artillery quarters. The other latrines are in the same condition as noted in last year's report, and the remarks therein concerning them are applicable at present.

"*Canterbury.*—New barracks have been erected in the Cavalry Square, and taken into occupation.

"The whole of the drainage, which was defective, has undergone repair and alteration, and I expect that much improvement will be effected thereby.

"*Brighton.*—A nuisance was caused by the establishment of a depôt for the storage of manure opposite the barracks. A representation was made to the local sanitary authorities, and in consequence of their action the nuisance was removed.

"*Chichester.*—Water has been laid on from the town waterworks, and gas has been recently introduced into the barracks with great advantage. The Artillery stables at this station are being converted into barrack rooms for the use of the Militia.

"At other stations the sanitary conditions do not call for any special remark."

Chatham.

Deputy Surgeon-General Auchinleck reports that "the health of the troops in the Chatham District has been fairly good during the past year. There have been no epidemics, nor has there been much serious disease. Smallpox has shown itself twice during the year, but did not spread; it is still prevalent in the towns of Chatham and Rochester, but the troops continue to enjoy exemption, a proof, if any were needed, of the protection afforded by re-vaccination.

"Venereal diseases have largely prevailed, and the latter half of the year shows a considerable increase in the numbers affected with this disorder. Two of the regiments in the garrison have come from unprotected stations, and the number of recruits constantly joining is considerable, in many of whom the disease manifests itself soon after their arrival, showing that they have probably contracted it elsewhere. The stations in the district are under "the Act." Soldiers are however constantly going away for short leave to London and other places.

"The rations have been invariably reported by the medical officers as good; the meat is, as has been often said before, too small in quantity for young men actively employed; when the bone is removed, and the meat has been cooked, from the ¾ lb. allowed per man scarcely six ounces remain.

"The cooking arrangements are generally good, and have undergone no change.

"Water supply is also favourably reported on.

"At my half-yearly inspection I noted several matters which seemed to require special attention, and brought them at an early date to the notice of the military authorities.

"To these representations replies of a generally satisfactory nature were given, and the defects will be remedied in the course of time.

"I also drew attention to the want of a drill shed for the men at St. Mary's Barracks; this however is a work requiring a special grant of funds. *United Kingdom.*

"In the Brompton Barracks there is a gymnasium in which the troops undergo a regular course of training; the medical officers speak favourably of the effects of this course on the men's health and physique generally. There is no gymnasium at Gravesend or Sheerness.

"The following is a list of sanitary services executed by the Royal Engineers during the year that is past:—

"*Chatham, Brompton Barracks.*—Drainage improved; kitchens in servants' rooms ventilated; latrines provided at Royal Engineers' Institute; and drying room constructed in each of the four ablution rooms, with other minor services.

"*Chatham Barracks.*—Sinks and water supply to kitchens in officers' quarters provided; also four iron ash bins.

"*Gravesend, Tilbury Fort.*—Drainage and water supply improved; the system of sewerage changed to glazed earthernware pipe drains.

"*Milton Barracks.*—Separate cisterns to all waterclosets and latrines fixed; traps and drains ventilated, and wastes from sinks and cisterns altered.

"*Sheerness Garrison.*—Wastes of sinks disconnected; main sewers, guard-rooms, and quarters ventilated; latrines to quarters, guard-rooms, cells, &c., converted into Goux's latrines: water laid on to urinals at the main guard; iron ash bins provided at Station Hospital; and a new well shaft bored to obtain a new supply of water.

"A number of works have been proposed for execution in 1877."

Woolwich.

Deputy Surgeon-General Small reports:—

"The general health of the troops has been on the whole satisfactory. There has been a slight increase in the actual number of "sick and inefficient" as against the previous year.

"Regarding the number of admissions for minor wounds and accidents, it may be remarked that these are inseparable from the nature of the duties of the Artillery arm of the service; and the large number of admissions from skin diseases is explained apparently by the great number of recruits which have been added to the strength during the year, as certain forms of skin disease are common amongst them. The admissions for venereal disease continue to cause a great deal of inefficiency, being equal to about one-sixth of the entire admissions. I regret I have nothing new to add to the remarks which were furnished last year by my predecessor upon this subject, as I fully accept his views in regard to the great difficulties which exist in Woolwich against the better prevention of this evil.

"The largest mortality has occurred among the troops from diseases of the respiratory system; and there is a circumstance, in connection with diseases of the chest generally, which I am desirous of bringing prominently to notice, namely, the predisposition to contract these affections amongst those soldiers who return here after long service in India, and whose constitutions are more or less impaired by the climatic diseases of that country.

"This was remarkable in the men of the 23rd Brigade, Royal Artillery, during the year, and, according to the reports of my predecessors, a similar experience was gained from observation of the men of the 18th Brigade, Royal Artillery, who occupied the garrison under the same condition in the previous year, viz., after a previous prolonged tour of Indian service. My limited experience has impressed me with the belief that, military reasons permitting, it would be more beneficial to the State and soldier were such men on first arrival in England quartered elsewhere, at Aldershot, for instance.

"Referring to the different forms of fever by which the admissions into hospital have been occasioned, it will be observed that typhus and typhoid fevers have occurred but very infrequently, while, on the other hand, intermittent fever accounts for more than a third of the entire number, and the attacks are

United Kingdom.

reported to have taken place for the most part in men either recently home from India, or with considerable previous Indian service.

"I should not have alluded to this except in connection with the previous question, namely, the propriety of quartering soldiers at Woolwich during their first year's service at home.

"I am unable to add anything to the remarks of my predecessors upon the subject of ventilation, cooking, drainage, accommodation and sanitary condition of barracks, camps and quarters, except that everything appears to receive proper attention. I am anxious, however, to see some improvements carried out in the Herbert Hospital, for the better treatment of disease, and which might be effected without much difficulty or expense. From the size of the wards, their mode of ventilation, and extent of window surface, it has been found that the heat falls very quickly, and although there are two stoves they appear inadequate to maintain the ward temperature at the uniform standard so desirable in the treatment of pulmonary affections. Almost every other class of disease seems to do well in the wards. I have forwarded and recommended an application from the medical officer in charge to have one of the present wards heated with hot water coils, and this recommendation is now under the consideration of the authorities. Again, the wards themselves are very noisy; the present polished oak floors resound to a painful degree when walked upon. A strip of matting, extending along the foot of the beds from one end of the ward to the other, would effect a great improvement in this respect.

"The following are the principal sanitary services in course of progress or carried into effect during the year:—

"1st. The *old latrines* at the camp on the common have been pulled down, and *new latrines* have been put up on M'Farlane's principle, to be flushed with water.

"2nd. *Barracks and Officers' quarters generally.*—Separate cisterns are being gradually provided, so as to separate the supply of water for drinking and cooking from that for flushing waterclosets. Wastes from cisterns are being made to flow into the open, and soil-pipes are being ventilated. About one-fifth of the work was completed during the past year.

"A number of sanitary recommendations have been made during the period embraced in this report."

Southern District.

Surgeon-General Bowen reports:—

"The general health of the troops in the Southern District has been extremely good, and no particular causes can be pointed out as having affected the health of the men in any way. There is a marked difference in the number of cases of venereal disease admitted in those places where the Contagious Diseases Act is in force, and those where it is not. I would instance especially Parkhurst and Portland.

"I have not noticed any sanitary defects that have not already been reported, and which are now either in progress of improvement or under consideration. The great difficulty in many places in this district arises from the low and level nature of the ground, which offers great difficulty to proper drainage in the vicinity of many of the barracks and forts; nevertheless during the past year there has been but very little disease that could be attributed to malaria.

"There is a general opinion amongst medical officers of experience, in which I concur, that the meat ration of the soldier is not sufficient, especially when he is employed on public works, as is very much the case here. I think that at least a quarter of a pound of meat more, or something equivalent, should be given, at any rate when the men are employed at hard work.

"The leading sanitary improvements have been as follows, and the general state of the different barracks and their vicinity is fairly good in a sanitary point of view:—

"*Cambridge Barracks.*—Sinks for carrying away slops have been provided for the married soldiers' quarters.

"*Gun Wharf Barracks.*—Foot-baths, with hot water supply provided.

"*Female Hospital.*—A new washhouse has been erected.

"*Gymnasium, Portsmouth.*—New latrine and urinal erected.

"*Gosport Station Hospital.*—The drainage of the officers' quarters improved.

"*Gosport New Barracks.*—Guard-room enlarged.

"*Winchester Barracks.*—Stone instead of wooden floors have been provided for the men's latrines, and the ventilation improved.

"*Christchurch Barracks.*—Urinal for the men has been erected at the back of the store.

"*Hilsea Barracks.*—Improved trapping to the drains, and connection of some of the Government buildings with the general drainage system.

"The training of men at the gymnasium has been undoubtedly of great advantage to them, and the number of accidents has been by no means large, as there is great care exercised by the instructors in the training of the men.

"I consider that it would be a great advantage if the Contagious Diseases Act were brought into operation at Portland and Weymouth, and at Cowes and Newport.

"Scarlet fever was prevalent amongst the civil population at Southsea and Portsmouth, and there were a few cases amongst the soldiers' children, and six cases amongst the troops.

"Four cases of enteric fever are recorded. Three or four cases of the same disease appeared amongst the women and children at Hilsea; these were traced to the use of water from a well which had been forbidden, and which has since been closed entirely."

Netley.

Surgeon-General Massy, C.B., premises that in consequence of his having so recently assumed charge as Principal Medical Officer of the Royal Victoria Hospital, it was impossible for him to enter into the working and other details of this large establishment from his own practical knowledge.

An abstract of the Registrar's Annual Report and Returns for the year 1876, shows:—

I. Invalids.

	Remained, 1st Jan., 1876.	Since Joined.	Died.	Discharged,			Remaining, 31st Dec., 1876.
				Invalided.	To Duty with Corps.	To Lunatic Hospital.	
Foreign Stations	127	2,472	38	1,377	1,125	3	56
Sent for change	4	41	2	5	36	1	1

II. Effective Troops.

	Average Annual Strength.	Remained in Hospital, 1st Jan., 1876.	Since Admitted.	Died.	To Duty.	Invalided.	Remained in Hospital, 31st Dec., 1876.
Army Hospital Corps	131·1	3	60	4*	53	3	5
Army Service Corps	24	1	10	1	9	..	1
Time Expired Depôt	179·9	14	155	5	122	2	40
Staff	4	..	..	..	..	..	..

* Two died in Hospital, and two out of Hospital.

United Kingdom.

"Although there is but little difference in the number of foreign invalids admitted compared with the previous year, viz., 2,270 in 1875 and 2,472 in 1876, the number discharged the service was much greater in the latter than the former, 957 having been found unfit for service in 1875, and 1,377 in 1876.

"The number of deaths was greater in 1875 than 1876; 51 invalids having died in the former year and only 38 in the latter, being in the ratio per 1,000 respectively of 21·77 and 14·62.

"*Arrival of Invalids.*—It would appear that the Indian invalids arrived in 1876, during February, March, April and May, and a few in June, by which the accommodation in the hospital was less severely strained than in some of the previous years, when the arrival of invalids from India was spread over a shorter period; nevertheless, even during 1876, men were disposed of direct from Portsmouth without coming here, in consequence of want of room in this hospital."

"*Army Hospital Corps.*—Since I assumed charge in November last, the Army Hospital Corps has been about thirty below the strength at this station, and the consequence has been that the hospital has not been, in point of cleanliness, tidiness, and regularity, all that I have been accustomed to in military hospitals. Since the termination of the school session the servants of the candidates have been available, and the state of the hospital has improved in these respects."

"*Water supply.*—There has not been any change that I am aware of. I visited the reservoir from which the water for ablution purposes is derived. It is about a mile and a half from the hospital, its chief feeder is a spring about one and a half miles further; the stream is a small one, and I believe is perennial. I imagine, if the artesian wells in the hospital grounds failed, that the supply could be augmented by some structural alterations from the former source.

"I am informed by the engineer in charge of the water supply, that he can provide 70,000 gallons a day. If this can be provided summer and winter, and the water is at all seasons good, it ought to be enough.

"*Provisions.*—All articles supplied are carefully and regularly inspected. The tea is examined in the laboratory and compared with the approved sample. With the exception of the potatoes, which were for a short time when I first came here not so good as they should have been, all the articles supplied have been since my arrival of excellent quality.

"*Canteen.*—The canteen seems well managed.

"*Cooking.*—This has been unchanged, and seems in all respects satisfactory. I have frequently inspected the cook-house, and the arrangements daily carried out.

"*Drainage.*—I have not discovered anything wrong in this respect, but cannot speak confidently of the details, from the fact that I have not been long enough here to do so.

"*Female Hospital.*—I believe this small building has answered its purpose, but it is not calculated to meet all the requirements of such an institution."

Surgeon-General Massy, adverting to the difficulty of providing accommodation for cases of contagious disease, strongly urges that provision should be made in the estimates for building a new women's hospital, the existing one being appropriated for contagious diseases. In summer all such cases could be placed in tents, but in winter it would be impracticable to do so.

Northern District.

Deputy Surgeon-General Fogo reports:—

"The chief causes of sickness in the Northern District during the year have been diseases of the air passages, accidents, and venereal affection.

"Smallpox has given 9 admissions, and considering that the disease has been prevailing for most of the year in the large towns of Manchester and Salford, Liverpool, Preston, Sheffield and Bradford, where troops are stationed, it is a source of satisfaction that so few cases have occurred.

"There have been 4 admissions and 1 death from typhoid fever.

"Some of the barracks and hospitals are of very old construction, barely coming up to the required accommodation, and the necessities of light and ventilation. *United Kingdom.*

"The worst barracks are at Leeds and Sunderland; the worst hospitals at Leeds, Sunderland, Northampton and Burnley.

"The situations in Leeds and Sunderland are objectionable.

"At *Burnley* a new ward is being added to the old hospital.

"At *Northampton* new barracks for the brigade depôt are just finished, and a new hospital has been included in the estimates for 1878-79.

"At *Newcastle-on-Tyne* two new wards have been added to the old hospital, and the accommodation now is very good.

"At *Carlisle* the garrison cells are very bad from want of ventilation and deficiency of light

"At *Sunderland* nearly everything is bad.

"At *Fleetwood* the school accommodation has been represented as insufficient and insanitary—the room is below the level of the ground. Steps are being taken to provide a new schoolroom.

"At the Hutment Barracks a lock-up room is required as additional accommodation to the guard-room.

"At *Weedon* the schoolroom is too small.

"At *Warwick* new barracks and hospital have been occupied by the newly-formed 28th Depôt Brigade.

"At *Liverpool* representations have been made of the want of sufficient latrine and urinal accommodation at Rupert House hired barrack, as well as of the very inferior ablution and bath-room.

"At *Chester* improvements have been carried out in the latrines and drains.

"*Diet.*—Now that the Army is composed wholly of young soldiers, it is considered desirable the meat ration should be increased to 1 lb. (inclusive of bone).

"*Water Supply.*—All stations, except Weedon, are supplied with water from the local Corporations and Companies.

"Samples of the well water at Weedon have been analysed at Netley, and proved to be good and wholesome water.

"Samples of the Corporation supply at Leeds were also submitted to analysis at Netley, but as the results differed from those of a chemist employed by the Corporation, the examination is now being repeated.

"*Gymnasia.*—There are two gymnasia in the Northern District, at Salford and Preston; the reports from regiments are highly in favour of the training not only for developing the physical condition, but invigorating the constitutional powers of the men."

North British District.

Deputy Surgeon-General Furlong reports that "there has been no epidemic disease, and that no particular cause of disease has been noticed by medical officers in charge of troops; although there were more men actually sick in 1876, the diseases were of a less fatal character than in 1875.

"Five cases of enteric fever occurred, two at Piershill, two (one fatal) at Glasgow, and one (fatal) at Perth; no connection existed between the cases at the first-named station.

"*Barracks.*—The new married quarters at Greenlaw have been finished, they are very complete for comfort and convenience; the hospital, officers' and men's quarters are not yet ready.

"At *Maryhill* some of the men's quarters are occupied; they are very good, but the hospital and remainder of the barracks will not be ready for some time.

"*Piershill.*—Although there is nothing to object to in the sanitary state of the barracks or hospital, there is more sickness at this station than at any other in the Command, except Glasgow. I consider the neighbourhood of the works of the North British Railway, and of the sewage farm, injurious to the general health.

United Kingdom.

"*Leith Fort.*—New married quarters are being built here. A new canteen was completed, also a new urinal in its neighbourhood, and handed over to the troops.

"*Glasgow, Gallowgate Barracks.*—Little can be said in favour of these barracks, and the hospital accommodation is bad; but the building is to be evacuated for Maryhill eventually.

"*Ayr.*—There are plenty of lavatories, but no bath-room.

"*Paisley.*—These barracks are to be given up when the new ones at Hamilton are ready. The married people are much crowded in barrack rooms; lodgings scarcely to be procured.

"*Hamilton.*—A new hospital is under construction as well as married quarters; a new and excellent lavatory has been handed over for barrack use. An old cesspool latrine has been cleaned out and closed.

"*Stirling.*—The married people are still in barrack-rooms; although there is plenty of space, there are two families in one room separated by curtains.

"*Perth.*—A new hospital is being constructed, and the barracks are being remodelled.

"*Dundee* is occupied by a small detachment; the hospital is a very good one, and supplied with all conveniences; it is non-dieted, and in charge of a civil practitioner. The barracks in Claverhouse's house are fair and in an airy situation, though surrounded by factories and chimneys.

"*Fort George.*—A detached latrine has been provided for the hospital, but a covered way to it is required. General improvement has been made to the latrine accommodation of the barracks, but more is still required. A new ablution-room is urgently wanted in the hospital, and those in the barracks require to be remodelled and drained. The ventilation of the east wing of the hospital and of most of the barrack-rooms is defective, particularly in those occupied by the 79th Regiment. There is not really any good water in the fort, but no injurious effects to health have been noticed. The dead-house is not fitted up, and is too close to the hospital; it would make a good foul linen store, which is much required.

"*Greenlaw* has been occupied by the 62nd Brigade Depôt since 31st May, 1876. The hospital is temporary and bad; the new married quarters are occupied, and the hospital, officers' quarters, &c., will soon be ready.

"*Dunbar.*—Not been occupied since May, 1876, when the Depôt removed to Greenlaw.

"*Water.*—Very good; from distant supply everywhere, except Fort George. The supply is generally ample, the only places at which there appear to be any restrictions are Piershill and Aberdeen.

"*Canteens* have been well supplied; they appear to be much frequented by the men and their families for food, &c., as well as for malt liquor; no spirits sold in them.

"*Drainage.*—The ventilation of sewers is being carried out by the Royal Engineers at nearly all the stations, and will shortly be completed.

"*Vicinity of Barracks, &c.*—Except at such stations as Glasgow, Paisley, and perhaps Aberdeen, where the barracks are closely surrounded by houses of the poorer class, factories, &c., the vicinity of the barracks was generally in good sanitary condition. At Maryhill it is feared that the new barracks will be shortly in the midst of factories and houses of a poor class."

Dublin.

Deputy Surgeon-General Holloway reports:—

"Many grave sanitary defects existing in the Dublin garrison and district during the early part of the year 1876–77, have been discovered and remedied.

"The faulty condition of the drainage of the Royal Barracks has formed the subject of investigation, and plans for revising it are matured. The work will be commenced about the middle of May of the present year.

"A serious defect has been discovered by the officer of Royal Engineers commanding the District. It consisted in the construction of the

latrine of the infant school, Arbour Hill, by which the excreta fell direct into the open sewer at the highest point of the system of drains for the Royal Barracks. Steps are being taken to remedy this. *United Kingdom.*

"There have been many important sanitary improvements during the year, both in the Dublin Garrison and District. The drains and soil-pipes have been ventilated by tubes carried above the eaves of the buildings. Waste-pipes from the latter have been disconnected from the drains; separate cisterns for waterclosets and flushing purposes have been provided; the traps and catch-pits have been revised. These improvements, which are general to the district, have been rapidly and efficiently carried out.

"In Dublin the drains at Aldboro' House, which were in a very bad state, have been thoroughly revised. At Linen Hall Barracks the cess-pit privy for the officers has been converted into a watercloset. The system of drains at the Ship Street Barracks has been rendered very efficient by remodelling the three sewers of this barrack, and conducting them by one channel into the great poddle sewer where they have been efficiently syphoned, the syphon tapped, and a four-inch ventilating pipe inserted, which provides very thoroughly for the egress of air from these drains. At Magazine Fort a cess-pit privy has been converted into a watercloset. The flooring of the huts at Beggar's Bush Barracks has been taken up, the ground examined and found dry and in good order, gratings have been inserted into the hut walls below the floors, ensuring free circulation of air. The latrines at Pigeon House Fort have been reconstructed, and are now on Jennings' principle with flushing apparatus.

"Portobello Barracks have shared in the general improvements made in the garrison. The sanitary condition of this barrack formed the subject of investigation by a board of officers, assembled in March, 1876, who reported very favourably on it. A few defects, consisting of ill-trapped sewers without ventilation, have all been remedied, and I consider this barrack to be in thorough sanitary order. It is at present supplied with canal water from the reservoirs of the Company, but a project for supplying it with Vartry water is now in an advanced stage. At Richmond Barracks Vartry water has been laid on during the year, and nothing remains but the contract to be arranged with the Company before connection is made; I understand that this will be done immediately. At the Royal Barracks, as already stated, the condition of the whole of the drains having been ascertained, arrangements are in progress for clearing out the troops, when the drains will be remodelled throughout.

"At Athlone extensive filtering beds for purifying the water of the Shannon have been constructed, force pumps and tanks supplied, and the barrack supplied with water good and abundant.

"The drains and catch-pits of this barrack have been overhauled and improved.

"The wells at Longford have been revised and made perfect, and water from one of them is now under analysis.

"The married quarters at Mullingar are now nearly ready for occupation, and attempts are being made to improve the water supply by clearing out a large tank and filtering apparatus. Provision has been made in the estimate for another and larger tank for this barrack.

"The married quarters at Birr are finished; a new well has been provided at Castlebar.

"There has been temporary overcrowding at some stations, but this has never been of any duration, nor injurious to health.

"The means of ablution and cooking remain as before, and are on the whole sufficient and satisfactory.

"The effect of gymnasia on the health of troops has been satisfactory.

"Venereal disease is very prevalent, especially in the Dublin Garrison. The Contagious Diseases Act is not in operation; and it is to be regretted that the funds of the Lock Hospital are only adequate for the maintenance of a portion of this valuable institution in working order."

Belfast District.

United Kingdom.

Deputy Surgeon-General Webb reports, that "the most important sanitary defects that came under my notice were at Belfast. The latrines, urinals and ash-pits are much too near the barracks, and there is only one ash-bin or box in the infantry square, for the use of men, averaging 700. Owing to the occurrence of cases of typhoid fever in the barracks at Belfast, a sample of water supplied by the Water Works Company, was forwarded to Netley for chemical analysis, and pronounced by the Professor of Hygiene to be unfit for drinking and cooking purposes, in consequence of which water from the Cromac springs was issued to the troops. Much correspondence, of too bulky a nature to insert here, has taken place with respect to C Block Officers' Quarters, Belfast Barracks, in which two cases of typhoid fever occurred during the year. The house has been vacated, and remains unoccupied until sanitary improvements throughout the building have been effected. Some improvements in the position of bath and ablution room, which could be added on to the Station Hospital at Belfast, would tend very materially to the comfort of the patients. Some improvements might be made at Dundalk, by affording more cubic space in barracks and hospital, and at Newry, by using the corridors, but this would require separate heating apparatus for them.

"A list furnished by the Commanding Royal Engineer shows that there have been many sanitary improvements to buildings, drains, &c., throughout the Command.

"The Gymnasium at Belfast is much used, and no injurious effects have resulted from the training of the soldiers there; on the contrary, all the arrangements seem to conduce to health and strength.

"The chief improvements in the way of new buildings are as follows:—

At *Belfast*, buildings for 30 married soldiers are in the course of erection. An infant school, stores, and bath rooms have been erected in B, C, and D houses.

"*Armagh*.—The hospital, which has been occupied for years as a militia store, will shortly be completed for hospital purposes, and the sick will be removed from huts which they now occupy.

"At *Londonderry*, 24 married soldiers' quarters have been commenced.

"At *Monaghan*, a new ablution shed has been erected."

Cork District.

Deputy Surgeon-General Crocker states:—"The reports from the several stations in the District give a satisfactory account of the general health of the troops during the year. The sickness has been mostly of a general character, and, except amongst the children, there has been no prevalence of any epidemic disease. At Fermoy, measles occurred in an epidemic form amongst the families, and 7 cases also appeared among the troops, 5 of which were at Cork. Scarlatina also prevailed at different places, though not to the same extent, as only 20 children altogether suffered, and 3 men. In every instance the most stringent regulations were adopted to keep the cases isolated, and hence the spread of the disease was materially checked. Enteric fever, which prevailed at Kinsale to such an extent in the latter part of 1875, has only caused 4 admissions; one of these occurred at Kinsale, and was attributed to the impurity of the drinking water obtained from one of the wells, which has since been closed. In addition to the above, two other cases occurred in Cork Barracks; one of these was the wife of a soldier, and, so far as could be made out, she must have contracted the disease out of barracks; the other was an officer, and this case would appear to owe its origin to a badly trapped drain in the vicinity of his quarters. All the above cases recovered.

"The chief cause of mortality has been phthisis. I alluded last year, when remarking on the prevalence of phthisis, to the overcrowding of barracks that had existed at different times, and I have again to state that at several places in the district the rooms have been occupied in excess of regulation for a longer

or shorter period. Representations have been made at various times of the overcrowding, which sometimes it has been possible to remedy, but not always. *United Kingdom.*

A good many sanitary works have been carried out by the Royal Engineer Department, the chief of which are the following:—

"At *Kinsale*, the entire system of drainage has been reconstructed, and earthenware pipes laid down. Several of the barrack-rooms have been provided with additional ventilation, and the old-fashioned open fire grates replaced by Galton's ventilating stoves; baths provided for the ablution room; the old ash-pits removed, and iron bins furnished in their stead. A large block of most comfortable and commodious quarters for married families has also been built.

"At *Charles Fort*, the surface and underground drainage has been reconstructed and an iron ash-bin substituted for the old ash-pit. Earth closets also have been commenced.

"At *Cork*, the sewers have been ventilated by shafts opening above the roofs of the houses, so as to cut off the sewer gas; the same has been carried out at *Limerick* and *Tralee*.

"At *Fermoy*, additional ventilation has been provided for several of the men's rooms.

"At *Templemore* and *Bandon*, new earth closets have been built and the old cess-pits filled in, and the same is now being done at *Kilkenny*.

"In addition to the above, a good many other improvements have been from time to time effected, when the necessity was pointed out.

"*Water Supply.*—The water supply in the district is not altogether satisfactory, more especially at those stations where it is obtained from wells within the barracks. Several samples of water obtained from different sources have been examined by the War Department Chemist, and the Professor of Hygiene at Netley, and found unfit for drinking purposes.

"I think these examples suffice to prove that water obtained from wells in barracks that have been long occupied, and where the old system of drainage prevails, cannot be safely used for drinking, on account of its liability to be contaminated, either by infiltration of surface water or by soakage of sewage matter from drains, but as earth closets are now being generally introduced the latter source of contamination may probably, in course of time, be got rid of. There are, however, several places in the District where the cess-pit system still prevails, but it is to be hoped this may gradually be remedied."

Curragh Camp.

Deputy Surgeon-General Macbeth reports, that "the chief improvements are only in progress, and none of them have yet been quite completed. The ventilation, lighting, and heating of the huts are being gradually altered. It is proposed to reorganise the hospital accommodation, and several improvements have been effected in both station hospitals, notably in No. 2, the ground about which has been enclosed, planted, and laid out in gardens, &c."

United Kingdom.

Section II.

On the Amount of Invaliding.

The number of non-commissioned officers and men invalided in the force serving in the United Kingdom, and in each arm separately, is shown in the following Table :—

		Troops generally.	Household Cavalry.	Cavalry.	Royal Artillery (including the Depôt Brigade.)	Foot Guards.	Infantry Regiments.	Depôts.	Royal Engineers.
Strength		92,781	1,205	10,639	14,918	5,349	40,113	9,358	3,583
1876..	Number discharged as Invalids ..	2,370	20	354	370	106	972	418	50
	Ratio per 1,000 ..	25·54	16·70	33·27	24·80	19·82	24·23	43·51	13·96
1866–75.	Ratio per 1,000 ..	26·45	14·48	28·27	30·19	21·88	25·16	44·29	15·04

For the troops generally, the rate of invaliding is ·26 per 1,000 men lower than that of 1875.

Section III.

On the Number constantly in Hospital, of the Troops serving in the United Kingdom.

		Troops generally.	Household Cavalry.	Cavalry.	Royal Artillery.*	Foot Guards.	Infantry	Depôt Brigade, Royal Artillery.	Depôts.
Mean Daily Sick per 1,000 of the strength	1876 ..	39·60	27·71	41·97	35·55	42·94	34·22	46·24	38·61
	1866–75	40·06	28·64	38 94	42·49	43·89	35·00	51·33	41·90
		Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
Average Sick time to each Soldier in the course of the Year	1876 ..	14·45	10·11	15·32	12·11	15·69	12·48	16·88	14·09
	1866–75	14·62	10·45	14·22	15·51	16·02	12·77	18·73	15·29
Average Duration of each Case of Sickness	1876 ..	17·46	15·27	17·31	16·87	19·29	16·42	14·90	16·95
	1866–75	17·75	17·00	18·48	17·85	22·06	17·69	17·23	17·30

* Exclusive of the 1st Brigade Royal Artillery.

Compared with the preceding year, all the results are favourable ; the proportion of constantly sick is ·87 per 1,000 lower, that of the average sick time to each man is ·32 per 1,000 lower, and the average duration of each case of sickness is ·31 per 1,000 men less. All the results are favourable also for each arm of the service.

Section IV.

United Kingdom.

On the Influence of Age on the Mortality of the Troops serving in the United Kingdom.

The rates of mortality at different ages (arranged in quinquennial periods), in the several arms of the service, are shown in the following Table:—

Corps.	Annual Ratio of Deaths per 1,000 Living, at the following Ages:—					
	Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Household Cavalry	..	..	6·25	..	7·94	12·05
Cavalry	1·97	5·64	6·59	4·10	12·28	19·56
Royal Artillery	4·72	7·31	3·50	7·74	11·06	35·21
Foot Guards	1·30	7·34	13·05	11·58	14·60	30·30
Infantry	2·98	3·88	6·42	8·09	15·77	13·22
Depôt Brigade Royal Artillery, Depôts and Brigade Depôts ..	2·45	6·30	5·61	9·14	24·80	22.01
Ditto, ditto, ditto .. 1866–75	3·69	7·72	11·06	20·39	23·70	24·52
Average of preceding, exclusive of all Depôts	2·99	4·95	6·53	8·17	14·57	18·86
Ditto, ditto 1866–75	3·04	5·31	6·51	12·17	17·53	23·95
Civil Male Population — England and Wales ..	7·41	8·42	9·21	10·23	11·63	13·55
Civil Male Population — Healthy Districts ..	5·83	7·30	7·93	8·36	9·00	9·86

United Kingdom.

Section V.

On the Recruiting of the Army.

The annual medical reports show that 41,809 recruits were inspected in 1876; of these, 30,787 were examined by Army Medical Officers and 11,022 by Civil Medical Practitioners. The rejections on primary inspection amounted to 10,369, and on secondary inspection to 1,050, making a total of 11,419, or 273·12 per 1,000 of the number examined; the proportion of rejections being 15·68 per 1,000 higher than in 1875.

The following Table shows the numbers inspected and rejected, and the ratios of rejections per 1,000 examined:—

	Number of Recruits Primarily Inspected.	Number Rejected.			Ratio of Rejections per 1,000 Inspected.	
		On Primary Inspection.	On Secondary Inspection.	Total.	Primary Inspections.	Both Primary and Secondary Inspections.
By Army Medical Officers	30,787	8,485	1050	11,419	275·60	273·12
By Civil Medical Practitioners ..	11,022	1,884			170·93	
Total	41,809	10,369	1050	11,419	248·01	273·12

The proportion of rejections on primary examination both by Medical Officers of the Army and Civil Medical Practitioners is higher than in 1875.

The native countries of the recruits, the ratios of rejections, and the proportion per 1,000 furnished by each country, are given in the following Table:—

Native Countries of Recruits.	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Rejected on Secondary Inspection.	Total.		Proportion Rejected per 1,000 Inspected.	Proportion per 1,000 of Recruits furnished by each Country.
	Inspected.	Rejected.	Inspected.	Rejected.		Primarily Inspected.	Rejected at Primary and Secondary Inspections.		
England and Wales... ...	20,968	5,739	9,191	1619	812	30,159	8,170	270·90	721·4
Scotland	3,388	967	489	70	89	3,877	1,126	290·43	92·7
Ireland	6,130	1,716	1314	193	145	7,444	2,054	275·93	178·0
British Colonies and Foreign Countries... ...	301	63	28	2	4	329	69	209·73	7·9
Total ...	30,787	8,485	11,022	1884	1,050	41,809	11,419	273·12	1000·0

The rate of rejections is higher for recruits born in the United Kingdom, and lower for those born abroad than in 1875. The proportions per 1,000 of recruits furnished by England and Ireland are greater, and by Scotland and foreign countries less, than in the preceding year.

The following Table shows the number of recruits inspected for each arm of the service, the number rejected, the ratios of rejections, and the proportion per 1,000 inspected for each arm of the service :— *United Kingdom.*

Arms of the Service.	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total Primary Inspections.		Rejected at Secondary Inspection.	Total Rejected at Primary and Secondary Inspections.	Ratio of Rejections per 1,000 of Recruits Inspected.	Proportion per 1,000 of Recruits examined for each Arm.
	Inspected.	Rejected.	Inspected.	Rejected.	Inspected.	Rejected.				
Household Cavalry	260	72	2	...	262	72	...	72	274·81	6·3
Cavalry of the Line	3,439	832	465	74	3,904	906	27	933	238·99	93 4
Royal Artillery	5,916	1,579	2,103	246	8,019	1,825	174	1,999	249·2	191·8
Royal Engineers	851	217	27	3	878	220	...	220	250·57	21·0
Foot Guards	765	236	981	221	1,746	457	237	694	397·48	41·7
Infantry and Departmental Corps	19,556	5,549	7,444	1340	27,000	6,889	612	7,501	277·31	645·8
Total	30,787	8,485	11,022	1,884	41,809	10,369	1,050	11,419	273·12	1000·0

The rate of rejections is much lower for the Household Cavalry and Royal Engineers, and a little lower for the Foot Guards, than in the preceding year; in the other arms it is higher. The Foot Guards again show the highest, and the Cavalry of the Line the lowest proportion of rejections.

Table showing the number of recruits rejected in 1876, with the causes of rejection arranged in classes, and the ratio per 1,000 in each class :—

Causes of Rejections, in Classes.	Recruits Rejected on Primary Inspection.						Rejections on Secondary Inspection.	Total Rejections on Primary and Secondary Inspections.	
	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total.				
Numbers inspected.	30,787		11,022		41,809			41,809	
	Numbers Rejected.	Ratio per 1,000 Rejected.	Numbers Rejected	Ratio per 1,000 Rejected.	Numbers Rejected.	Ratio per 1,000 Rejected		Numbers Rejected.	Ratio per 1,000 Rejected.
1. Syphilis	462	15·01	123	11·16	585	13·99	49	634	15·16
2. Scrofula	175	5·68	37	3·36	212	5·07	10	222	5·31
3. Phthisis	123	4·00	76	6·90	199	4·76	22	221	5·29
4. Impaired Constitution	262	8·51	58	5·26	320	7·65	34	354	8·47
5. Muscular Tenuity and Debility	1,382	44·89	148	13·43	1,530	36·60	166	1,696	40·57
6. Other General Diseases	79	2·57	18	1·63	97	2·32	13	110	2·63
7. Diseases of Nervous System	51	1·66	8	·72	59	1·41	7	66	1·58
8. Weakness of Intellect	64	2·08	1	·09	65	1·55	17	82	1·96
9. Defective Vision	1,419	46·09	312	28·31	1,731	41·40	131	1,862	44·54
10. Diseases of Eyes and Eyelids	116	3·77	15	1·36	131	3·13	25	156	3·73
11. Diseases of Nose and Mouth	16	·52	1	·09	17	·41	1	18	·43
12. Disease of Ears	14	·45	1	·09	15	·36	1	16	·38
13. Deafness	72	2·34	6	·54	78	1·87	7	85	2·03
14. Impediment of Speech	47	1·53	3	·27	50	1·20	11	61	1·46
15. Disease of Heart	646	20·98	130	11·80	776	18·56	117	893	21·36
16. Disease of Arteries (Aneurism)	3	·10	1	·09	4	·10	4	8	·19
17. Disease of Veins (Varix)	580	18·84	189	17·15	769	18·39	48	817	19·54
18. Diseases of Lungs (except Phthisis)	62	2·01	9	·82	71	1·70	16	87	2·08
19. Loss or Decay of Teeth	239	7·76	42	3·81	281	6·72	23	304	7·27
20. Hernia	267	8·67	114	10·34	381	9·11	33	414	9·90
21. Laxity of Abdominal Rings	139	4·51	37	3·36	176	4·21	13	189	4·52
22. Hæmorrhoids	91	2·96	26	2·36	117	2·80	16	133	3·18
23. Diseases of Urinary Organs	25	·81	12	1·09	37	·89	2	39	·93
24. Varicocele	382	12·41	173	15·70	555	13·27	32	587	14·04
25. Other Diseases of the Genital Organs (not Syphilitic)	88	2·86	20	1·82	108	2·58	2	110	2·63
26. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	254	8·25	32	2·90	286	6·84	45	331	7·92
27. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	307	9·97	74	6·71	381	9·11	59	440	10·52
28. Flat Feet	150	4·87	33	2·99	183	4·38	33	216	5·17
29. Diseases of Joints	76	2·47	3	·27	79	1·89	10	89	2·13
30. Other Affections of Bones and Muscles	54	1·75	7	·64	61	1·46	10	71	1·70
31. Ulcers, Wounds, and Cicatrices	211	6·85	28	2·54	239	5·72	19	258	6·17
32. Other Affections of the Cutaneous System	163	5·29	54	4·90	217	5·19	8	225	5·38
33. Malformation of Ears	...	...	...	...	...	...	...	...	...
34. ,, ,, Nose and Mouth	7	·23	...	...	7	·17	1	8	·19
35. ,, ,, Chest and Spine	352	11·43	87	7·89	439	10·50	45	484	11·58
36. ,, ,, Urin. or Gen. Organs	15	·49	2	·18	17	·41	1	18	·43
37. Marks of Punishment, or letter D. or B.C.	23	·75	1	·09	24	·57	4	28	·67
38 Marks of Cupping, Blistering, &c.	51	1·66	3	·27	54	1·29	15	69	1·65
39. Unknown	18	·58	...	...	18	·43	...	18	·43
Total Rejected	8,485	275·60	1,884	170·93	10,369	248·01	1050	11,419	273·12

The chief causes of rejection were syphilis, impaired constitution, muscular tenuity, defective vision, diseases of the heart, diseases of the veins, loss of teeth, hernia, varicocele, defects of the upper and lower extremities, ulcers, wounds, &c., and malformation of the chest and spine. *United Kingdom.*

When compared with last year's returns, there is a decrease observed in the ratios of rejections for muscular tenuity, diseases of the eyes, arteries, lungs (except phthisis), and urinary system, hernia, flat feet, diseases of the joints, other affections of bones and muscles, and malformation of the chest and spine; and an increase in all the other classes. The highest ratio of rejections is, as in 1875, or defective vision.

Table showing the ages of all recruits, as given at their primary inspection, and the proportion per 10,000 at each age:—

Ages.	Numbers Inspected.			Proportion in 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Examined by Army Medical Officers.	Examined by Civil Medical Practitioners.	Total.
Boys under 17	741	42	783	241	38	187
From 17 to 18	727	100	827	236	91	198
„ 18 to 19	7,623	2,721	10,344	2,476	2,469	2,474
„ 19 to 20	6,465	2,480	8,945	2,100	2,250	2,139
„ 20 to 21	3,673	1,458	5,131	1,193	1,323	1,227
„ 21 to 22	2,902	1,128	4,030	943	1,023	964
„ 22 to 23	2,367	922	3,289	769	837	787
„ 23 to 24	1,968	690	2,658	639	626	636
„ 24 to 25	2,082	719	2,801	676	652	670
25 and upwards	2,239	762	3,001	727	691	718
Total	30,787	11,022	41,809	10,000	10,000	10,000

Of every 10,000 recruits examined for the service, 5,099 were under 20 years of age; the proportion under this age is less than last year by 285, and the rates at all the ages (below 20 years) except between 17 and 18, are lower. At the higher ages (above 20 years) the proportion of recruits between 24 and 25 years is a little and at 25 years is much larger; the increase at the latter age being due to the extension of age, to 30 years, in the case of short service men.

Table showing the heights of recruits, and the proportion per 10,000 at each height:—

United Kingdom.

Heights.	Number Inspected.			Proportion in 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Examined by Army Medical Officers.	Examined by Civil Medical Practitioners.	Total.
Ft. In. Ft. In.						
Under 5 3 ..	702	39	741	228	35	177
5 3 to 5 4 ..	214	13	227	69	12	54
5 4 „ 5 5 ..	4,726	1,293	6,019	1,535	1,173	1,440
5 5 „ 5 6 ..	7,825	3,012	10,837	2,542	2,733	2,592
5 6 „ 5 7 ..	6,178	2,430	8,608	2,007	2,205	2,059
5 7 „ 5 8 ..	5,203	1,992	7,195	1,690	1,807	1,721
5 8 „ 5 9 ..	2,988	1,119	4,107	970	1,015	982
5 9 „ 5 10 ..	1,638	635	2,273	532	576	544
5 10 „ 5 11 ..	698	298	996	227	270	238
5 11 „ 6 0 ..	366	136	502	119	124	120
6 0 and upwards ..	249	55	304	81	50	73
Total	30,787	11,022	41,809	10,000	10,000	10,000

The proportion per 10,000 of recruits between 5 ft. 4 in. and 5 ft. 5 in. is much, and between 5 ft. 11 in. and 6 ft. is a little greater than in 1875; at each of the other heights it is less. There is an increase over last year of 385 per 10,000 recruits measuring under 5 ft. 6 in.; the increase below this height is due to the reduction of the standard, and is confined to the recruits measuring between 5 ft. 4 in. and 5 ft. 5 in.

Table showing the weights of recruits inspected by Army Medical Officers, and the proportion per 10,000 at each weight. There is no information of this kind available respecting those primarily inspected by Civil Medical Practitioners, or by Army Medical Officers at many of the smaller stations.

Weights.	Numbers Weighed.	Proportion per 10,000.
lbs. lbs.		
Under .. 100	430	219
100 to 110	207	105
110 to 120	2,324	1,182
120 to 130	5,240	2,665
130 to 140	5,627	2,862
140 to 150	3,509	1,784
150 to 160	1,486	756
160 to 170	568	289
Upwards of 170	271	138
Total	19,662	10,000

The proportions weighing under 100 lbs., from 130 to 140 lbs., and from 140 lbs. to 150 lbs. are less, those from 120 to 130 almost identical, and at the other weights greater than in 1875. The recruits weighing over 130 lbs. are in excess of those who were beyond that weight last year by 57 per 10,000.

The state of education of recruits primarily inspected by Army Medical Officers is shown in the following Table. There is no information available on this head respecting those examined by Civil Medical Practitioners :— *United Kingdom.*

	Numbers examined.	Ratio per 1,000.
Unable to read	5,520	179·3
Able to read only	2,828	91·9
Able to read and write	22,439	728·8
Total	30,787	1000·0

The proportion of recruits unable to read is higher than last year, of those able to read and write lower, while that of those able to read only is almos identical.

The occupations of recruits before enlistment, the proportions rejected, and furnished by each group, are shown in the following Table :—

Occupations of Recruits.	Number Inspected.	Rejected at Primary Inspection.	Rejected at Secondary Inspection.	Total Rejected.	Ratio per 1,000 Rejected.	Proportion per 1,000 of Recruits furnished by each group of occupations.
1. Labourers, Servants, Husbandmen, &c.	25,507	6,179	651	6,830	267·77	610·1
2. Manufacturing Artisans (as Clothworkers, Weavers, Lace Makers, &c.)	5,023	1,384	130	1,514	301·41	120·2
3. Mechanics employed in Occupations favourable to physical development (as Smiths, Carpenters, Masons, &c.)	7,300	1,889	212	2,101	287·81	174·6
4. Shopmen and Clerks	2,853	790	52	842	295·13	68·2
5. Professional Occupations, Students, &c.	343	65	4	69	201·17	8·2
6. Boys under 17 years of age ..	783	62	1	63	80·46	18·7
Total	41,809	10,369	1,050	11,419	273·12	1000·0

The ratios of rejections are higher in all the groups, except "Boys under 17 years of age" than in 1875. "Manufacturing Artizans," again, show the highest rate of rejections, and "Boys under 17" the lowest. The proportions of men, under the two first headings, offering themselves for the service are higher, under the third almost identical, and under the last three lower than in the preceding year.

III. ON THE HEALTH OF THE TROOPS SERVING IN THE MEDITERRANEAN COMMANDS.

Section I.—*Sickness and Mortality.*

I.—Gibraltar.

STATISTICAL REPORT.

Gibraltar. The average annual strength of the force at Gibraltar was 4,695, non-commissioned officers and men, amongst whom there were 3,129 admissions into hospital, and (including those of invalids who died on the passage or after arrival at home) 36 deaths; the average number of constantly sick was 175·60; the proportions given by these numbers are 666·3, 7·67, and 37·40 per 1,000 of the strength, respectively. The rate of admissions exceeds that of the preceding year by 45·4 per 1,000 men; the rate of deaths is 2·17 per 1,000 higher; the rate of constantly sick is fractionally lower.

The corps which served at Gibraltar in the year, and some of the most important of their health statistics, are shown in the following Table:—

Corps.	Completed years of service in Command.	Average Annual Strength.	Admissions into Hospital.	Died.			Invalids sent Home.	Average Daily Sick.	Rate per 1,000 of strength.				Average sick time to each Soldier.	Average duration of cases of sickness.
				At Gibraltar.	Invalids.	Total.			Admissions.	Deaths.	Invalided.	Daily Sick.		
													Days.	Days.
17th Brigade Royal Artillery ..	2	978	614	9	..	9	10	45·9	627·8	9·20	10·23	46·93	17·13	27·29
Royal Engineers	..	353	321	1	1	2	2	12·5	909·3	5·67	5·67	35·41	12·92	14·21
1st Battalion 4th Foot	2	666	304	4	2	6	3	14·5	456·4	9·01	4·50	21·77	7·95	17·41
2nd „ 23rd „	2	665	381	1	..	1	4	20·8	572·9	1·50	6·01	31·28	11·42	19·93
*31st Foot	8	190	83	1	..	1	3	7·0	436·9	5·26	15·80	36·84	13·45	30·08
69th „	3	631	422	4	..	4	5	21·6	668·8	6·34	7·92	34·23	12·49	18·68
†102nd „	..	449	537	10	..	10	..	26·7	1196·0	22·27	..	59·47	21·70	18·15
2nd Battalion Rifle Brigade ..	2	652	388	2	..	2	11	22·8	595·1	3·07	16·87	34·97	12·76	21·45
Army Service Corps	..	60	36	..	..	..	1	1·6						
Army Hospital Corps	..	43	42	1	..	1	..	2·2	711·8	9·00	9·00	34·24	12·50	17·56
Garrison Staff	..	8	1	..	..	..	..							

* Left the Command in April. † Arrived in the Command in April.

Gibraltar. As regards the prevalence of sickness, it will be seen that the proportion for the 102nd Regiment, which arrived at the station in the second quarter of the year, is nearly double the average, the admissions into hospital exceeding the mean strength of the corps; the death-rate is also more than double that of any other, and is nearly three times as great as the average for all corps. The admissions for the diseases in the *febrile group* are in a higher rate than for any other corps, and rheumatism also contributed to the disproportionate amount of sickness in the regiment; its mortality was very slightly influenced by the prevalence of fevers, one death only being returned in the group; half of the deaths being due to diseases of the heart and blood vessels, namely, 1 to valve disease of the heart, and 4 to aneurism.

The classes and orders of diseases by which the sickness and mortality in the Command was caused, are shown in the following Table:—

Orders.	Diseases.	1876. Average Annual Strength, 4,695. Admitted into Hospital.	Deaths. At Gibraltar.	Deaths. Of Invalids.	Deaths. Total.	Annual ratio per 1,000 of Strength. Admitted.	Annual ratio per 1,000 of Strength. Died.	1869–75. Annual ratio per 1,000 of Strength. Admitted.	1869–75. Annual ratio per 1,000 of Strength. Died.
	I. *General Diseases.*								
1	Febrile Group ..	636	10	..	10	135·6	2·13	88·9	1·44
2	Constitutional „	590	7	3	10	125·7	2·13	105·0	1·41
	II. *Local Diseases.* Diseases of the—								
1	Nervous System	21	..	..	..	4·5	..	7·2	·26
2	Eye	56	..	..	..	11·9	..	18·2	..
3	Ear	23	..	..	..	4·9	..	3·6	..
4	Nose	..	..	..	..	..	..	·7	..
5	Circulatory System ..	40	9	..	9	8·5	1·92	11·1	·93
6	Absorbent „	22	..	..	..	4·7	..	4·2	..
7	Ductless Glands	..	..	..	..	..	..	·1	..
8	Respiratory System ..	193	3	..		41·1	·64	43·9	·77
9	Digestive „	412	..	..	..	87·3	..	82·3	·19
10	Urinary „	201	1	..	1	42·8	·21	66·8	·32
11	Generative „	56	..	..	..	11·9	..	14·3	..
12	Organs of Locomotion ..	20	..	..	..	4·3	..	5·0	·06
13	Cellular Tissue	78	..	..	..	16·6	..	14·0	..
14	Cutaneous System ..	190	..	..	..	40·7	..	61·4	..
	III. *Conditions, &c.*								
	Debility	78	..	..	..	16·6	..	5·3	..
	IV. *Poisons*	68	..	..	..	14·5	..	7·3	·16
	V. *Injuries.*								
2	Accidental	438	3	..	3	93·3	·64	92·0	·42
4	Self-inflicted	1	..	..	..	·2	..	·2	·19
	VI. *Surgical Operations.*	..	..	..	..	..	..	·1	·03
	No appreciable disease ..	6	..	..	..	1·3	..	1·1	..
	Total	3,129	33	3	36	666·4	7·67	632·7	6·18
	Average of 10 Years 1866-75	..	..	..	..	654·0	6·37	..	..

General Diseases. The rate of admissions exceeds that of the preceding year by 23·2 per 1,000 men; the increase is contributed to by both groups of the class. The rate of mortality is 1·50 per 1,000 men higher, and the increase occurs in both groups.

The admissions and deaths from the principal diseases in this class are shown in the following Table :—

General Diseases.	1876.		Annual Ratio per 1000 of Strength.			
			1876.		1869–75.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	5	1	1·1	·21	2·6	·06
Continued „	526	6	112·3	1·28	68·8	1·22
Paroxysmal „	81	3	17·2	·64	13·0	·10
Influenza	3	..	·6	..	1·9	..
Erysipelas	12	..	2·6	..	1·9	..
Other diseases	9	..	1·9	..	·7	·06
Total of Febrile Group..	636	10	135·7	2·13	88·9	1·44
Constitutional—						
Rheumatism	306	1	65·2	·21	42·9	·03
Syphilis	252	..	53·7	..	51·3	·03
Scrofula, Phthisis, &c.	31	9	6·6	1·92	8·1	1·25
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	..	..	..	..	1·8	..
Other diseases	1	..	·2	..	·7	·10
Total of Constitutional Group..	590	10	125·7	2·13	105·0	1·41

Eruptive Fevers.—The admissions (5) were all for scarlet fever. In the beginning of the year 26 men suffering from scarlet fever were admitted into the Station Hospital from one of H.M.'s ships, immediately after this the first admission for the disease among the military occurred, but there was no evidence of a connection between the cases in the garrison and those received from the "Sultan." One attack of scarlet fever proved fatal from intercurrent pneumonia, and it is stated that another death—recorded as from nephritis—might perhaps have been a remote consequence of scarlet fever.

Continued Fevers.—The rate of prevalence of fevers of this nature is nearly 22 per 1,000 men higher than the corresponding rate for 1875; the rate of mortality is exactly the same for both years.

Enteric Fever.—The 35 admissions for this disease were those of men of eight of the corps in the garrison, and they were received from twelve different barracks. The 31st Regiment returns no admissions for this disease, and the North Front is not mentioned among the localities where the disease appeared. The influence of season in favouring the occurrence of this fever was not shown in a marked way.

Simple Continued Fever, and Febricula.—For the first-named disease there were 61, for the last-named 430 admissions.

Paroxysmal Fevers.—The rate of admissions is little more than half as high as that for the preceding year. *Ague.*—The 14 admissions for this fever were those of men from seven different corps. *Remittent Fever*, caused 67 admissions, 3 of the illnesses were fatal; the post-mortem appearances in one of the fatal cases are not to be distinguished from those usually found in fatal cases of enteric fever, and in another fatal case death was preceded by peritonitis. Respecting paroxysmal fevers, the Medical Officer of the Station Hospital

Gibraltar. writes: "The (recorded) admissions for enteric fever, ague, and remittent "fever do not, I think, adequately represent the occurrence of those diseases, "as . . . most of the fevers on the Rock (excepting mild cases of simple "continued fever and febricula resulting from errors of diet, abuse of stimu- "lants, or exposure to the sun) are of a typho-malarial nature. . . ."

Erysipelas.—The rate of prevalence of this disease is a little lower than that for 1875.

Rheumatism.—The rate of prevalence is 9·5 per 1,000 men higher than in the preceding year; in the fatal case death was due proximately to an intercurrent cardiac complication.

Syphilis.—The rate of admissions exceeds that of the preceding year by 5·6 per 1,000 men.

Scrofula, Phthisis, &c.—The rate of admissions differs only fractionally from that of 1875, but the death-rate is larger.

Local Diseases.—*Diseases of the Nervous System.*—Twelve of the 21 admissions for diseases in this order were on account of neuralgia, 1 was for sunstroke, 4 were for epilepsy.

Diseases of the Eye.—49 of the admissions in this order were due to conjunctivitis, a disease more prevalent in the 69th, 102nd, and in the 2nd Batt. 23rd, than in the other corps.

Diseases of the Circulatory System.—The diseases in this order are in a lower rate of prevalence, but in a higher rate of mortality than in the preceding year, more than half of the admissions were due to palpitation, 7 of the deaths were from aneurism.

Diseases of the Respiratory System.—The rate of admissions is 5·1 per 1,000 men lower than in the preceding year; the rate of deaths is three-fold higher.

Diseases of the Digestive System.—The rate of prevalence of diseases in this order is nearly the same as in the preceding year, one-third of the whole admissions was due to tonsillitis; dyspepsia caused 98 admissions, dysentery 3, hepatitis 9, and diarrhœa 1; for colic the relatively large number of 39 admissions took place.

Diseases of the Urinary System.—The rate of admissions is fractionally lower than in 1875.

Conditions, &c.—The rate of admissions for debility, is two-thirds higher than in the preceding year, the relative prevalence of this condition was greatest in the Royal Artillery, and in the 2nd Battalion of the Rifle Brigade; in the last named corps it is stated that the admissions were usually due to weakness following ague.

Poisons.—The rate of admissions is nearly seven times higher than in the preceding year, a circumstance which may perhaps depend rather on difference of diagnosis than on difference in the amount of disease due to drink in the two years.

Injuries.—*Accidental.*—The rate of admissions is 13·4 per 1,000 men, and that of deaths is ·43 per 1,000 higher than in 1875; the fatal injuries were caused in one instance by the impaction of a piece of meat in the larynx, in another by fracture of the skull, and in the third by rupture of the liver and spleen.

Self-inflicted Injuries.—One admission only, being that for a gunshot wound, is returned in this order.

Officers.

In an average annual strength of 156 officers there were 131 attacks of illness and 3 deaths, being in the rates of 839·7, and of 19·23 per 1,000 of the strength respectively; each is higher than the corresponding rate of 1875. Eleven officers were invalided during the year, being in the rate of 70·52 per 1,000, which differs only fractionally from that of last year. Of the deaths, 1 was due to enteric fever, 1 to aneurism, and 1 to Bright's Disease.

Women.

The average annual strength of the wives of the non-commissioned officers and men was 426, amongst whom 150 attacks of illness and 3 deaths are

returned, being in the rates of 352·1, and of 7·04 per 1,000 of the strength respectively. Of the illnesses 7 were due to scarlet fever, 1 to enteric fever, and 31 to fevers of other kinds; 23 illnesses are recorded as due to general debility. Two of the deaths were from phthisis, and one from valve disease of the heart. *Gibraltar.*

Children.

In an average annual strength of 864 children of non-commissioned officers and men, there were 259 attacks of illness and 34 deaths, being in the rates of 299·8 and of 39·35 per 1,000 of the strength respectively. The death-rate exceeds that of the preceding year by 5·84 per 1,000 of the strength. Eruptive fevers caused 53 attacks of illness, of which 48 were of scarlet fever; there were 42 attacks of other kinds of fevers, 1 being of enteric fever. The proportional prevalence of no order of disease is in excess of that which may be considered as normal for children. Diseases of the *nervous system* (adding the condition of teething to this order) contributed only 12 attacks; diseases of the *respiratory system* 58, diseases of the *digestive system* 44, of which 39 were for diarrhœa. The illnesses returned under the head of general debility were 3 in number. Of the deaths 8 were due to scarlet fever, 1 to cerebro-spinal fever, 2 to scrofula, 1 to tabes mesenterica, 1 to atrophy, 1 to convulsions, 1 to laryngitis, 3 to bronchitis, 3 to pneumonia, 3 to teething, 1 to dysentery, and 9 to diarrhœa.

SANITARY REPORT.

Surgeon-General Huntly G. Gordon reports that the general health of the troops has been good, and that there have been no special causes of diseases.

Surgeon-General Gordon adds, that a report has been rendered for the information of H.E. the General Commanding, embodying all recommendations made by him at his annual inspection of barracks and hospitals for 1876. The most important of these were—the extension of ablution and bath rooms; the substitution of wooden for stone floorings for quarters specified; the provision of fireplaces in certain specified rooms; together with remarks as to the possible source of contamination of water supply from North Front, and a recommendation for the removal of the cess-pit latrines at the Officers' Quarters, Defensible Barracks, Windmill Hill. A number of sanitary services, of a minor character have been carried out, such as the ventilation of sewers, the remedying of defects in soil pipes, the laying on of water to the barracks at North Front, and the improvement of ventilation of barrack rooms, &c., by extraction shafts.

II.—Malta.

STATISTICAL REPORT

Exclusive of the Royal Malta Fencible Artillery, the average annual strength of the non-commissioned officers and men serving in the Command was 4,539; the admissions into hospital among them were 3,644; the deaths, including those of 7 invalids, were 47; the average number of daily sick was 198·94. The admissions are therefore in the rate of 802·8, the deaths in that of 10·35, and the daily sick in that of 43·83 per 1,000 of the strength respectively. The rate of admissions is 103·3 per 1,000 men lower than that of the preceding year; the death-rate is fractionally lower; the constantly sick-rate however, is 1·62 per 1,000 higher. *Malta.*

Certain of the most important of the health statistics of the corps which served in the Command in 1876 are shown in the following Table:—

Corps.	Completed year of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalids sent Home.	Average Daily Sick.	Rate per 1,000 of Strength.				Average Sick-time to each Soldier.	Average duration of cases of Sickness.
				At Malta.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Daily Sick.		
													Days.	Days.
12th Brigade, Royal Artillery	3	957	782	13	3	16	32	46·17	822·3	16·72	33·40	48·24	17·61	21·55
Royal Engineers	..	206	164	1	1	2	5	7·59	791·2	9·71	24·27	36·84	13·44	16·88
27th Foot*	..	57	104	2	..	2	..	3·42	1824·6	35·09	..	60·00	21·90	12·00
42nd „	2	648	367	5	..	5	11	23·42	566·4	7·72	16·97	36·14	13·19	23·29
71st „	3	634	653	2	1	3	12	29·73	1030·0	4·73	18·91	46·89	17·12	16·62
74th† „	4	583	379	2	1	3	9	25·76	650·1	5·14	15·44	44·18	16·13	24·81
98th „	1	731	653	6	..	6	17	30·41	893·3	8·21	23·25	41·60	15·18	17·00
101st „	2	654	505	7	..	7	7	28·43	772·2	10·70	10·70	43·47	15·87	20·55
Departmental Corps ..														
Garrison Staff ..	..	69	37	2	1	3	2	4·01	536·5	43·48	29·00	58·11	21·21	39·56
Attached Men, &c. ..														

* Arrived in the Command from England in November. † Left the Command in December.

Malta.

As in the preceding year, the health of the Royal Artillery was worse than that of any corps in the Command having a considerable strength, though its admission-rate is exceeded by the 71st and the 98th Regiments; the high death, invaliding, and constantly sick rates give unfavourable results which in a comparison outweigh the fact that the number of men admitted into hospital was proportionately less than that for each of the regiments noted; half of the deaths in the corps were caused by enteric fever. The highest admission rate is that of the 71st Foot, it exceeds the average of the force in the Command by 227 per 1,000 men; the occurrence of many cases of febricula amongst the men at Pembroke Camp, occasioned this result.

The sickness and mortality in each class and order of diseases, is shown in the following Table:—

Orders.	Diseases.	1876.—Average Annual Strength, 4,539.						1869–75.	
		Admitted into Hospital.	Deaths.			Annual ratio per 1,000 of the Strength.		Annual ratio per 1,000 of the Strength.	
			In Malta.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	667	17	..	17	146·9	3·75	181·9	2·50
2	Constitutional „ ..	463	1	3	4	102·0	·88	84·0	1·78
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	66	3	..	3	14·5	·66	10·5	·48
2	Eye	86	..	..	..	19·0	..	29·1	..
3	Ear	36	..	..	..	7·9	..	4·4	..
4	Nose	2	..	..	..	·4	..	·6	..
5	Circulatory System ..	79	4	3	7	17·4	1·54	11·4	1·48
6	Absorbent „ ..	24	..	..	..	5·3	..	4·9	..
7	Ductless Glands ..	..	..	..	..	..	..		
8	Respiratory System ..	176	4	1	5	38·8	1·10	43·3	·96
9	Digestive „ ..	684	5	..	5	150·7	1·10	143·8	·87
10	Urinary „ ..	194	..	..	..	42·7	..	40·8	·15
11	Generative „ ..	58	..	..	..	12·8	..	12·7	..
12	Organs of Locomotion..	26	..	..	..	5·7	..	5·3	·06
13	Cellular Tissue.. ..	112	..	..	..	24·7	..	28·3	·09
14	Cutaneous System ..	297	..	..	..	65·4	..	64·5	..
	III. *Conditions.*								
	Debility..	37	..	..	..	8·2	..	10·5	..
	IV. *Poisons* ..	17	1	..	1	3·8	·22	11·2	·27
	V. *Injuries.*								
2	Accidental	615	4	..	4	135·5	·88	100·4	·63
3	Homicidal	..	..	..	..	..	..	·1	·03
4	Self-inflicted	4	1	..	1	·9	·22	·6	·30
	VI. *Surgical Operations*	..	..	..	..	..	..	·2	·06
	No appreciable disease..	1	..	..	..	·2	..	1·3	..
	Total	3,644	40	7	47	802·8	10·35	789·8	9·66
	Average of 10 Years, 1866–75	..	..	..	..	818·6	12·51	..	..

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GENERAL DISEASES.—The prevalence of diseases in this class is 18·4 per 1,000 men lower than the rate for the preceding year, and in correspondence with this the death rate is ·93 per 1,000 men lower. The decreased prevalence occurs in both groups of the class, but the mortality from diseases of the *febrile group* is in a rate one-third higher, whilst that from diseases of the *constitutional group* is 2·23 per 1,000 men lower than in 1875.

The admissions and deaths from the principal diseases in the class, are shown in the following Table :—

General Diseases.	Admitted.	Died.	Annual ratio per 1,000 of Strength. 1876. Admitted.	1876. Died.	1869–75. Admitted.	1869–75. Died.
Febrile—						
Eruptive Fevers	4	..	·9	..	3·0	·36
Continued „	618	15	136·1	3·30	166·8	1·96
Paroxysmal „	29	1	6·4	·22	7·5	·15
Influenza	4	..	·9	..	1·7	..
Erysipelas	10	..	2·2	..	2·1	..
Other diseases of this group	2	1	·4	·22	·8	·03
Total of Febrile Group	667	17	146·9	3·74	181·9	2·50
Constitutional—						
Rheumatism	267	..	58·8	..	51·3	..
Syphilis	154	..	33·9	..	21·1	..
Scrofula, Phthisis, &c.	35	4	7·7	·88	9·8	1·54
Scurvy and Purpura	..	..	..	..	·3	·03
Anæmia	1	..	·2	..	1·0	..
Other diseases of this group	6	..	1·3	..	·5	·21
Total of Constitutional Group	463	4	101·9	·88	84·0	1·78

Eruptive Fevers.—The admissions were for scarlet fever.

Continued Fevers.—For all fevers of this nature together, the rate of prevalence is 4·6 per 1,000 men lower than in the preceding year: the rate of mortality from them is ·96 per 1,000 men higher. *Enteric fever*, caused 49 admissions and 13 deaths; the proportion of mortality to cases treated, is therefore 265·30 per 1,000. The only corps which do not return admissions for enteric fever, are the Royal Engineers, the 27th and the 98th Regiments: the proportional prevalence of the disease in the Royal Artillery (26·1 per 1,000 men) was greater than that for any other, excepting the Army Hospital Corps, for which it is 94·3 per 1,000, but the relatively small strength of the last-named corps precludes a fair comparison in this respect. The Principal Medical Officer states that enteric fever cases were received from every barrack in the Command, with the exception of two or three, the names of which are not given. The disease prevailed nearly throughout the year; admissions from it being returned for every month except April, May, and December, in the other months its intensity did not differ importantly; the deaths were most numerous in June and July. Though the general diffusion of this kind of fever throughout the garrison is the most noticeable feature in connection with its presence during the year, the disproportionate frequency of its occurrence amongst the men of the Royal Artillery, who were placed at night during the hot weather in tents pitched on St. James's Cavalier, has considerable interest, in connexion with a possible cause of the outbreak. The Principal Medical Officer states that St. James's Cavalier is on the highest and most airy ground in Valetta, and that the drainage and water

supply for it were satisfactory, but that the cause of the outbreak in the Royal Artillery quartered there "was at last traced to the very large town sewer ventilators placed in its roof on account of the elevated position. During the summer months the inmates of the barracks under the Cavalier slept on the terreplein, and breathed this sewer atmosphere." No more cases occurred when the men of the Royal Artillery (amongst whom the fever had appeared) were encamped on an adjoining bastion. Of the five attacks of enteric fever in the Army Hospital Corps, three are stated to have occurred in men not employed in immediate connection with the sick. *Malta.*

Simple Continued Fever.—The prevalence of this form of fever was nearly in the same proportion as that for the preceding year, the admissions for it in the 42nd Regiment are greatly in excess of those in any other corps. Two attacks of simple continued fever were fatal; in one instance the symptoms noted are similar to those present in enteric fever, namely, loss of appetite, great weakness, fever aggravated at night, and attended with severe frontal headache, flushed face and sleeplessness, morning and evening fluctuations of temperature, frequent attacks of epistaxis, eventually diarrhœa, delirium, stupor, and death.

Febricula.—Nearly one-third of the admissions for this form of fever took place in September, and they were no doubt in many instances due to the great heat experienced in that month. The Principal Medical Officer, in an appendix to his report, gives an instructive chart showing the relations existing between the prevalence of disease and certain meteorological phenomena; the highest number of admissions and the greatest heat are found together in September, and the excess is chiefly caused by the great number of admissions for febricula.

Paroxysmal Fevers.—Nine admissions for ague are returned, none were due to residence in Malta.

Remittent Fever.—Of the 20 admissions, one-half are returned by the 98th. An attack of this fever proved fatal in a man of the regiment; jaundice occurred early in the illness, the highest temperature noted (102·6) was on the seventh day, after this it fell steadily to 97·4 on the tenth day; suppression of urine occurred on the eighth day, and when the secretion reappeared it was very scanty and contained much albumen. On the eleventh day spots of ecchymosis appeared on the skin; death was preceded by repeated attacks of convulsions.

Erysipelas.—The rate of admission for this disease is little more than the half of that for 1875.

Rheumatism.—The rate of admissions is a little lower than that for the preceding year.

Syphilis.—The rate of admissions is 5·1 per 1,000 men lower than in the preceding year.

Scrofula, Phthisis, &c.—Both the rate of prevalence, and that of mortality, are materially lower than in 1875, but in dealing with such small numbers as the admissions for these diseases give, great fluctuations are to be expected, and the results for one year have therefore comparatively little importance.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions exceeds that of the preceding year, by more than a third; nearly half of the admissions were for neuralgia, 15 were for epilepsy, and 12 were for various forms of mental disease. One of the deaths was caused by encephalitis, and two by apoplexy.

Diseases of the Eye.—There is a greatly diminished rate of prevalence for diseases of this order on that of 1875, the probable cause of which is not adverted to in the reports.

Diseases of the Circulatory System.—The rate of admissions is nearly the same as that for the preceding year; of 79 admissions, 54 were for palpitation. Six of the deaths were due to aneurism.

Diseases of the Respiratory System.—The rate of admissions is 16·9 per 1,000 lower than that for 1875, and this decrease is accompanied by a lower death-rate.

Diseases of the Digestive System.—The rate of admissions is 37·3 per 1,000 men lower than in the preceding year, but a much greater fatality attended

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diseases of this order than in that year; 3 of the deaths were due to hepatitis, 1 to acute atrophy of the liver, and 1 to peritonitis.

Diseases of the Urinary System.—The rate of prevalence of diseases in this order is 8·7 per 1,000 men lower than that for the preceding year.

Conditions, &c.—*General Debility.*—The rate of admissions is only the half of that for 1875.

Poisons.—The admissions in this class were all due to the effects of drink; the proportional prevalence is fractionally higher than in 1875.

Injuries.—*Accidental.*—The rate of admissions is 16·8 per 1,000 men higher than that for the preceding year; of the deaths, 1 was caused by drowning, 2 by fracture of the skull, and 1 by injury of the spine, from a fall in the gymnasium.

Officers.

In an average annual strength of 217 officers, there were 130 attacks of illness, and 3 deaths; 9 officers were invalided to England. The proportions given by these numbers are, for attacks of illness, 599; for deaths, 13·82; and for invaliding, 41·48 per 1,000 of the average annual strength, respectively.

Fever caused more illnesses than any other single disease. The deaths were due to apoplexy (2), to hepatitis terminating in abscess (1). Of the invaliding, hepatitis was the cause in three instances, in one of them the disease had ended in abscess. The prevalence of inflammation of the liver, and that of a very dangerous kind, amongst officers in the present year, is in consonance with the same circumstance observed amongst the men.

Women.

In an average annual strength of 429 wives of non-commissioned officers and men, there were 201 attacks of illness recorded, and 4 deaths, being in the annual rates of 468·5, and of 9·32 per 1,000 of the strength respectively.

Diseases of the *febrile group*, caused 30 of the attacks, enteric fever in one instance; conjunctivitis was relatively frequent; diarrhœa caused 20 attacks. The deaths were due to enteric fever, 1; choleraic diarrhœa, 1; apoplexy, 1; aneurism of aorta, 1.

Children.

In an average annual strength of 834 children of non-commissioned officers and men, there were 531 attacks of illness and 41 deaths, being in the annual rates of 634·3, and of 49·16 per 1,000 of the strength, respectively. The death rate is 4·24 per 1,000 lower than that of the preceding year. Eruptive fevers caused 13 attacks, of which 8 were of diphtheria; enteric fever caused 3, and fevers of other kinds, 57 attacks; hooping-cough, 2 attacks; phthisis was comparatively infrequent, only 3 attacks are recorded, but they probably represent only the severest forms of the disease met with; conjunctivitis caused 50 attacks; bronchitis, 80; dysentery, 3; diarrhœa. 83; tænia solium, 10. The illnesses returned under the head of general debility were 24, taken in connection with the mortality attending them, and the known presence of enteric fever in the garrison, it may be suspected that some of the fatal cases of the condition referred to, may really have been illnesses from enteric fever.

Royal Malta Fencible Artillery. *Malta.*

The average annual strength of the non-commissioned officers and men of this corps was 339, amongst whom there were 258 admissions into hospital, being in the rate of 761·1 per 1,000 of the strength. No death took place during the year. The number constantly sick was 11·53, being in the rate of 34·01 per 1,000 of the strength. The admission rate is 13·6 lower, and that of constantly sick is 4·20 higher than the corresponding rate of 1875.

The admissions, in the different classes and orders of diseases, are shown in the following Table :—

Orders.	Diseases.	Royal Malta Fencible Artillery.						English Troops at Malta in 1876.	
	Average Strength	339		Annual Ratio per 1,000 of Strength.				Annual Ratio per 1,000 of Strength.	
				1876.		1869–75.			
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	23	..	67·9	..	60·6	1·49	146·9	3·75
2	Constitutional „ ..	49	..	144·9	..	83·0	·90	102·0	·88
	II. *Local Diseases.* Diseases of the—								
1	Nervous System	1	..	2·9	..	11·3	·90	14·5	·66
2	Eye	25	..	73·7	..	128·1	..	19·0	..
3	Ear	1	..	2·9	..	2·7	..	7·9	..
4	Nose	..	..	..	..	·6	..	·4	..
5	Circulatory System	7	..	20·6	..	5·1	·59	17·4	1·54
6	Absorbent „	2	..	5·9	..	5·3	..	5·3	..
8	Respiratory System ..	11	..	32·4	..	55·5	..	38·8	1·10
9	Digestive „	31	..	91·4	..	164·8	1·49	150·7	1·10
10	Urinary „	23	..	67·9	..	59·4	..	42·7	..
11	Generative „	4	..	11·8	..	9·0	·30	12·8	..
12	Organs of Locomotion ..	1	..	2·9	..	2·7	..	5·7	..
13	Cellular Tissue	7	..	20·6	..	34·9	..	24·7	..
14	Cutaneous System	40	..	118·0	..	105·7	..	65·4	..
	III. *Conditions.*								
	Debility	1	..	2·9	..	1·8	..	8·2	..
	IV. *Poisons* ..	..	..	..	..	·9	..	3·8	·22
	V. *Injuries.*								
2	Accidental	32	..	94·4	..	53·1	..	135·5	·88
3	Homicidal	..	..	..	..	·6	·30	..	..
4	Self-inflicted	..	..	..	..	·3	..	·9	·22
	No appreciable disease ..	..	..	..	..	·6	..	·2	..
	Total	258	..	761·1	..	786·0	5·97	802·8	10·35
	Average of 10 years, 1866–75	..	..	..	..	774·9	7·01	..	..

General Diseases.—The rate of prevalence of diseases in this class exceeds that of the preceding year, by 51·9 per 1,000 men; nearly the whole of the increase is in diseases of the *constitutional group.*

Malta.

Febrile Group.—There was no admission for any eruptive fever. *Continued Fevers.*—Of the 21 admissions, 1 was for enteric fever, and 20 were due to febricula; respecting them, the medical officer of the regiment states that the enteric fever case of illness was contracted in the military prison; and concerning the admissions for febricula, he writes: "The cases of febricula "occurred as frequently as formerly: some were dependent on exposure to "cold, and lasted only a few days, whilst others were caused by some climatic "influence, not malarial, had a long course, and were followed by rheumatic or "neuralgic pains, orchitis, and anæmia. These last long-continued cases "would have been called by foreigners, 'Malta Fever,' but I am convinced that "there is no such thing as a class of fevers endemic in this island . . . . ." *Parozysmal Fevers.*—The 2 admissions for ague were those of men who had contracted the disease elsewhere.

Constitutional Group.—The rate of admissions for rheumatism is 79·6, and that for syphilis is 69 per 1,000 men.

Diseases of the Eye.—The rate of admissions shows a decrease of 59 per 1,000 on that of the preceding year, and the medical officer states that the cases have also been of less severity; he attributes both results to a systematic inspection of the men suffering from granular eyelids, and to the use of tannic acid, in glycerine, in the treatment of even the mildest chronic cases of this affection.

Diseases of the *Circulatory System*, are in a little higher rate than that of 1875; the rates of diseases of the *Respiratory, and Digestive Systems*, are a little lower; in the latter order there are 13 admissions for dyspepsia, all of which it is stated were due to errors in diet, not to drunkenness. *Diseases of the Urinary System*, are 3 per 1,000 men in excess of the very high rate of the preceding year. The remarks of the medical officer respecting diseases of this order, are important:—"The admissions for gonorrhœa seem rather too many, "but about one-third have been for relapses as, in order to be exempt from "stoppages, the men do their best to deceive the medical officer by hiding the "discharge; in a few days they come back to hospital, and the number of "admissions is accordingly increased."

Injuries.—*Accidental.*—Nearly a third of the admissions in this class were for blisters of the feet, occurring in recruits, who, previously to enlistment, had worn sandals, or had walked barefooted.

Invaliding.

Two men, being in the rate of 6 per 1,000 of the strength, were invalided, one for mental disease, and one for valve disease of the heart.

Constantly Sick.

The average number constantly sick, 11·53, is in the rate of 34·01 per 1,000 men, and from this number it is found that the sick time to each soldier during the year was 12·41 days, and that the average duration of each case of sickness was 16·31 days.

SANITARY REPORT.

Surgeon-General Fraser, C.B., remarks that no substantial change has taken place in the condition of the barracks in the Command since his last Report.

"No alteration has been effected in the generally defective condition of the drainage of Malta; but now that the Imperial Government has notified its consent to contribute towards the total expense, it is to be hoped that its general improvement will be carried out. That portion of the scheme which the Commanding Royal Engineer has had in hand, on the Cottonera side, since the end of 1875, is progressing as fast as possible, and he calculates it will be completed in March, 1878. Should the Civil Government vote the money necessary for remodelling the street sewers in the 'Three Cities,' and connect them with the intercepting sewers now in progress, this part of the scheme may also be completed in March, 1878.

"The general condition of the barracks is as good as the faulty casemated construction of many of them will allow. *Malta.*

"The subject of fuel for the winter months in barracks has been under consideration, as it is at present only allowed in guard-rooms.

"The dilapidated wooden (Crimean) huts in the advanced works at Floriana are, I understand, to be removed.

"*Space of Men in Barracks.*—No increase has taken place in the cubic or superficial space during the year. The same general surface crowding, therefore, continues, and to relieve this, about half the men sleep in tents during the summer months, to reduce the number in the barrack dormitories.

"The lower tier of casemates in Lower St. Elmo barracks has been improved as far as practicable, and some of the rooms recommended for occupation, excepting during the hot summer months.

"The old military prison has also been converted into 12 married quarters and will be shortly occupied.

"The *ventilation* in some of the barracks is good, in others fair, and all are provided with inlets and outlets. Most of them are lighted with gas.

"The *drainage* of the barracks is satisfactory, excepting as to their outlets into the harbours, which will not be rectified until the general drainage improvements are carried out. The water latrines and urinals in all are in good condition and regularly flushed with water, either fresh or salt. The 'Camerata' married quarters, with upwards of 100 waterclosets, is in a most unsatisfactory state, and is now being thoroughly examined by the Royal Engineer Department, with a view to its general improvement as respects drainage, new water latrines, and water supply. The tank water having been contaminated, aqueduct water was laid on for drinking and cooking purposes. The building has accordingly been evacuated for the above purpose.

"Some of the town sewer ventilators, which have their outlets on the roof of St. James's Cavalier, from its being the highest ground in Valletta, have been raised considerably in consequence of several cases of enteric fever having occurred amongst its inmates, who slept in the terreplein during the summer months; it subsided on the men being placed in tents on the parade ground below.

"The main sewers at Pembroke Barrack, Cottonera Hospital, and Notre Dame, and also at the Officers' Pavilion, Floriana, have been ventilated.

"Some of the barracks are supplied with aqueduct water, which is very good, and others with tank water or both. The supply is sufficient, but limited.

"The Commanding Royal Engineer has proposed, and I believe submitted, to the War Office, an improved system of filtering, which, if approved of, will be applied gradually to all the tanks.

"The ablution and bath accommodation is satisfactory, with sufficient water laid on. At Pembroke Barrack salt water is laid on, and fresh water is carried by hand.

"A new ablution room and baths have been provided in the Lascaris Barracks for the Royal Malta Fencible Artillery.

"The cook-houses are all in good condition, and provided with Warren's and Deans' cooking range.

"The military prison may now be considered to be in a good sanitary condition, since the dry-earth conservancy system has been carried out in its integrity.

"There has been no admission from enteric fever since March last. The prison dietary, however, is under consideration, and an increase of the meat diet has been recommended.

"No material change has been effected in the hospitals during the year.

"The supply of Cottonera Hospital with aqueduct water has been under consideration; but the limited quantity from the 'Fanara' aqueduct is likely to prevent this being carried out.

"Valletta Station Hospital should be converted into a barrack, and a new hospital erected, as recommended by the Royal Sanitary Commission in 1863. A female hospital is also very much wanted for the treatment of serious cases of diseases occurring among the wives and children of soldiers. Separate and detached wards for the treatment of infectious diseases are also wanted,

Malta. and I have recommended that the barrack store in rear of Cottonera Hospital be converted into an infectious hospital, if a new one cannot be provided.

"A comparative table of *diseases* during the last five years shows a considerable reduction in the ratio of admissions during 1876, but an increase in the mortality, caused by the greater prevalence of enteric fever. The ratio of invaliding has been considerably less than last year."

[The following report on the alleged origin of four cases of enteric fever, among the men of Army Hospital Corps at Cottonera Hospital, in connection with the use of tank water, was drawn up by Surgeon-Major Adcock, under whose medical charge the cases occurred, in compliance with a request to that effect.]

"*Cottonera Hospital, 10th November*, 1876.

"The men of the Army Hospital Corps stationed at this hospital who were attacked with typhoid fever, were those named in the accompanying return, and employed as therein stated. Sergeant W. and Private S. were ill for some time before their admission; but from the nature of their duties they were able to keep about longer than the other two men. In fact, the four men were attacked about the same time.

"At this period I am informed that the hospital steward, the corporal cook and the gas and water orderly, were all suffering from feverish symptoms, all of whom lived on the ground-floor, and, together with the four men who suffered from enteric fever, drank water from the same source, namely, the tap attached to the force pump, which brought water from the filtering chamber of tank 47 B. The only man living on the ground-floor who did not suffer was the compounder of medicines, who states that he drank the same water, but only after it had been passed through the filter in the dispensary. The tap alluded to was the favourite source for the drinking water used by the residents on the ground-floor, owing to its coolness, coming, as it did, direct from the underground tank; whereas the water from the taps of the water service of the hospital, coming from the iron tank on the roof, was warm and flat in taste.

"No case of fever occurred amongst the orderlies doing duty in the wards and living in the upper part of the building; neither was any patient attacked.

"These persons drank water from the water service of the hospital, supplied from another tank. Moreover, the water was drunk always after being passed through the filters, of which there are two in each ward.

"The condition of tank 47 B was found to be as follows:—

"The tank is a very large one, cut out of the rock and covered with an arched roof of masonry. It is situated immediately in rear of the hospital at the south side of the kitchen and offices. On examining it, with a view to discover any possible source of sewage contamination, a small square opening was found, partly closed with a stone plug, and leading into a small catch-pit, situated under one corner of the flagged space surrounding the opening of the tank.

"The flagged space—about 10 feet square, with a raised margin—was intended to catch any water which might be spilt when drawing water by buckets. The spilt water was then supposed to run into the catch-pit, and thence be carried by an earthenware pipe drain into the sewers. After a short course this pipe drain passed under the tap of the force pump, where a bell-trap was placed.

"Still further in its course, it received the drain water from the cook-house and thence passed to the main drain. On removing the plug, the catch-pit was found to be filled with black offensive mud, as was also the pipe drain. On further investigation it was found that water poured into the bell-trap under the force pump, ran at once into the catch-pit. This had actually occurred, I am informed, before I was in charge, to such an extent as to flood the flagged space with dirty water. It thus appears that water from a foul drain was constantly flowing into the catch-pit, and there depositing the more solid parts of the sewage.

"On representations being made to the R.E. authorities, they closed the catch-pit and removed the foul drain altogether. They also pumped out the water from the tank, as it had, on analysis, been found to be impure and unfit for drinking. *Malta.*

"On the water being pumped out from the tank, I descended into the filtering chamber to see if any leakage had occurred into the tank, and discovered water dripping into the filtering chamber through a large opening in the roof, by which the suction-pipe of the force pump entered.

"The opening being unfortunately immediately under the site of the catch-pit and foul drain, the iron suction pipe was coated with slimy matter and rust, and water had evidently for a long time been constantly trickling down it into the filtering chamber.

"I am quite convinced, by my investigations, that, owing to the faulty construction of the foul drain, sewage had for some time gravitated into the catch-pit, depositing there the more solid parts, the fluid portion gradually finding its way into the filtering chamber, through the hole in the roof of the tank, by which the suction-pipe entered. Though the bell-trap under this force pump was not intended for such a purpose, I believe that slops were constantly thrown there by the married people living in the hospital.

"In conclusion I beg to remark that at once, on the discovery of the state of the tank, the use of the water was discontinued, after which no fresh cases of enteric fever occurred amongst the residents of the hospital."

TANK 47B—COTTONERA HOSPITAL.



A.—Filtering chamber of Tank 47B.
B.—Filtering stones.
C.—Force pump.
D.—Suction pipe.
E.—Foul drain.
F.—Catch-pit.
G.—Trap.

"*Station Hospital, Cottonera, 10th November*, 1876.

Malta. "Cases of Enteric Fever from Detachment Army Hospital Corps serving at the above Hospital.

Regimental No.	Rank and Names.	Age.	Service. Yrs.	Service. Mths.	Single or Married.	Room in Hospital from which admitted.	Date of Admission.	Results.	Remarks.
2716	Private E. H....	21	3	...	S.	No. 42, Nurses' Room, to Prisoners' Ward Ground Floor ...	1876. 27 August...	Cured	Orderly to Prisoners' Ward.
2527	,, R. A. ...	21	2	...	S.	No. 16, Store Orderlies' Room, G Floor ...	27 August...	Died	Assistant Cook.
2580	,, W. S. ...	21	2	...	S.	No. 16, Store Orderlies' Room, G Floor ...	16 September ...	Cured	Provision Store Orderly.
144	Sergt. E. W. ...	40	20	9	M.	Hospital Sergeant, No. 1, Ground Floor	1 October ...	Under treatment	Ward-master."

Surgeon-General J. Fraser, C.B., in a covering letter to the foregoing, reports :—

"On the alleged causes being brought to my notice, I satisfied myself as far as possible, by personal observation and inquiry, as to the defects referred to. I concur in the report for the following reasons :—

"1st. Army Hospital Corps men, living on the ground floor of the hospital, who alone drink of the water pumped from tank 47 B, were the only sufferers from enteric fever.

"2nd. No cases occurred among the patients occupying the wards in the upper storeys, who drank water pumped from another tank 47 A.

"3rd. Some cases of enteric fever were treated in wards, but they all originated in barracks, and were not attended by these men, excepting the ward master ; orderlies attending cases in wards did not suffer.

"4th. No fresh cases occurred after closing the pump connected with tank 47 B.

"5th. The excess of organic matter, whatever its source may have been, is not very large, but no other assignable cause can be alleged to account for the fever being confined to men of Army Hospital Corps living in hospital, inasmuch as this tank 47 B receives water only from the clean roof of the hospital and kitchen, and from a reserve tank now dry.

"6th. The excess of organic matter appears to have been caused by infiltration from the foul drain and catch-pit, as described by Dr. Adcock, defects duly brought to the notice of the Commanding Royal Engineer, which he caused at once to be remedied and the tank cleaned out.

"7th. It is, however, due to the Commanding Royal Engineer to state, that he is, notwithstanding, very decidedly of opinion that no infiltration could possibly have taken place, for reasons which he gives in detail. He simply admits the filtration of some surface water at the opening, where the suction-pipes enter through the ground at this corner, after heavy rains ; but thinks that it would not contain any quantity of injurious matter, if any at all.

"Having recommended the laying on of aqueduct water to Cottonera Hospital, I am happy to be able to state that the Commanding Royal Engineer is in communication with the Civil Government with a view to obtaining a supply from Fanora aqueduct, before going into estimates for the necessary works.

"There are practical engineering difficulties, and considerable expense will be incurred in carrying this out."

Analysis of Water from Hospital Tank 47 B, 13th September, 1876.
Cottonera, Malta.

Composition.	Grains per Gallon. Good Water should not exceed the undermentioned quantities.	Grains per Gallon. Result of Analysis.	Excess.	Remarks.
Oxidizable Organic Matter ..	1·5	3·066	1·566	There appears to be an excessive amount of organic matter, and on this account alone the water ought to be objected to for drinking purposes.
Oxygen to oxidize Organic Matter	..	·1925	..	
Ammonia	..	Trace.	..	
Chlorine (Chloride of Sodium) ..	..	1·438	..	
Lime	..	2·372	..	
Total hardness	..	9·800	..	
Permanent do.	..	4·000	..	
Removables	..	5·800	..	

Physical character: taste indifferent; slightly opaque; reaction, nil; sediment inappreciable.

Section II.

On the extent of Invaliding among the Troops serving in the Mediterranean.

There were 39 non-commissioned officers and men invalided from Gibraltar, and 95 from Malta, being in the rates of 8·31 for the former, and of 20·93 per 1,000 of the strength from the latter Command. Twenty-six men, invalids, from Gibraltar, being in the rate of 5·54 per 1,000, were finally discharged the service during the year. From Malta 58 invalids, being in the rate of 12·80 per 1,000 of the strength, were finally discharged.

Mediterranean

Orders.	Diseases.	Invalids sent home from			Invalids discharged at Netley, &c., from		
		Gibraltar.	Malta.	Total.	Gibraltar.	Malta.	Total.
	I. *General Diseases.*						
1	Febrile Group	1	1	2	..	..	..
2	Constitutional „	16	27	43	10	23	33
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	1	14	15	2	5	7
2	Eye	..	1	1	1	4	5
3	Ear	..	4	4	..	4	4
5	Circulatory System	..	18	18	5	11	16
7	Absorbent „	..	1	1	..	..	..
8	Respiratory „	..	2	2	1	2	3
9	Digestive „	2	6	8	..	1	1
10	Urinary „	1	3	4	2	1	3
11	Generative „	..	2	2	..	..	..
12	Organs of Locomotion	1	2	3	1	1	2
13	Cellular Tissue	1	..	1	..	1	1
14	Cutaneous System	..	..	..	..	1	1
	III. *Conditions, &c.*						
	Debility	16	9	25	3	3	6
	V. *Injuries.*						
	Accidental	..	4	4	..	1	1
	Self-inflicted	..	1	1	..	..	..
	VI. *Surgical Operations* ..	..	..	..	1	..	1
	Total	39	95	134	26	58	84
	Ratio per 1,000 of Mean Strength .. 1876 ..	8·31	20·93	14·51	5·54	12·80	9·10
	Ratio per 1,000 of Mean Strength .. 1866-75	27·30	25·63	26·43	17·59	17·29	17·43

As regards Gibraltar, all the results are more favourable than those of the preceding year.

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men constantly sick in Gibraltar was 175·6, and in Malta 198·94, being in the annual rates of 37·40 and of 43·83 per 1,000 of the strength respectively; the first shows a fractional decrease on the rate of the preceding year, the last a fractional increase.

The usual information calculated from these numbers is given in the following Table:—

Mediterranean

	Gibraltar.	Malta (exclusive of Royal Malta Fencible Artillery).
Average Strength in 1876 ..	4,695	4,539
Average constantly Sick.. ..	175·6	198·94
Ratio per 1,000 constantly Sick { 1876 ..	37·40	43·83
Ratio per 1,000 constantly Sick { 1866–75..	33·25	41·15
	days	days
Average Sick time to each Soldier { 1876 ..	13·65	16·00
Average Sick time to each Soldier { 1866–75..	12·14	15·02
Average duration of each case of Sickness { 1876 ..	20·48	19·93
Average duration of each case of Sickness { 1866–75..	18·56	18·35

Compared with 1875 all the results are favourable as regards Gibraltar, and unfavourable as regards Malta; but in both instances the differences are inconsiderable.

Section IV.

Influence of the Age on Mortality.

The relation of age (arranged in quinquennial periods) to mortality, in the troops serving in the Mediterranean Commands, is shown in the following Table:—

Mediterranean Commands.			Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
1876	Average Strength ..		685	3,500	2,099	859	966	198
1876	Died		1	24	15	6	15	4
1876	Ratio per 1,000 of Strength ..		1·46	6·86	7·15	6·98	15·53	20·20
1866–75	Do. Do. ..		2·72	6·23	10·09	12·32	15·99	24·82

IV.—ON THE HEALTH OF THE TROOPS SERVING IN THE DOMINION OF CANADA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Dominion of Canada.

The force in this Command was stationed at Halifax; its composition was altered during the year by the replacement of the batteries of Royal Artillery, the companies of Royal Engineers, and of both of the regiments of Infantry, by other corps which had served previously in the Bermuda, and in the West India Commands.

The average annual strength of the troops was 1,760, the admissions into hospital were 1,084, the deaths in the Command, with that of an invalid on the passage home, were 8; the average number of constantly sick was 51·74. The proportions given by these numbers are, for admissions 615·9, for deaths 4·55, and for constantly sick 29·4 per 1,000 of the strength respectively. The rate of admissions is 42·7, that of deaths is 4·35, and that of constantly sick is 1 per 1,000 men lower, than the corresponding rate of 1875.

Certain particulars of the results of sickness in the corps serving in the Command are shown in the following Table:—

Corps.	Annual Average Strength.	Admitted into Hospital.	Died.	Invalided.	Average constantly Sick.	Ratio per 1,000 of Strength.				Average Sick time to each Man.	Average duration of each case of Sickness.
						Admitted.	Died.	Invalided.	Constantly Sick.		
										Days.	Days.
* 7th Brigade Royal Artillery ...	315	177	1	6	12·53	561·9	3·17	19·05	39·78	14·52	25·34
† Royal Engineers	101	68	...	4	4·33	673·3	...	39·60	42·87	15·65	23·24
‡ 1st Battalion 20th Foot ...	54	70	1	...	2·14	1296·3	18·52	...	39·63	14·47	11·16
§ 1st Battalion 60th Foot ...	609	310	3	12	12·08	509·0	4·93	19·70	19·83	7·24	14·22
‖ 87th Foot	618	416	2	15	20·70	673·1	3·24	24·27	33·50	12·23	18·16
¶ 97th Foot	32	33	...	...	·59	1031·2	...	....	18·44	6·73	6·53
Departmental Corps, &c. ...	30	10	1	1	·37	...	...	...	...	...	...

* Nos. 1, 2, and 7 Batteries left the Command in February; Nos. 3, 5, and 6 arrived in April.
† No. 7 Company was replaced by No. 26 Company in April.
‡ Arrived in November. § Left in December.
‖ Left in December. ¶ Arrived in December.

The rate of prevalence of sickness in the 87th Regiment compares unfavourably with that in the 1st Battalion of the 60th, and the same feature has been exhibited for three years in succession. It is stated that the number of old soldiers in the 87th may account for the greater amount of sickness in it, but this explanation is not supported by an examination of the returns of ages furnished by the Commanding Officers of the regiments, these correspond very closely, and it may moreover be assumed that an excess of young soldiers would increase the rate of prevalence of sickness in a regiment, however favourably the rate of mortality may be influenced by such a circumstance.

The admissions and deaths in the different classes and orders of diseases are shown in the following Table:— *Dominion of Canada.*

Orders.	Diseases.	Strength, 1,760.				1876.		1869–75.	
		Admissions.	Deaths.			Annual Ratio per 1,000.		Annual Ratio per 1,000.	
			In Canada.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
	I. *General Diseases.*								
1	Febrile Group ..	48	..	..	..	27·3	..	39·0	·53
2	Constitutional „ ..	90	1	1	2	51·1	1·14	108·1	1·28
	II. *Local Diseases.*								
1	Nervous system	24	..	..	..	13·6	..	9·5	·75
2	Eye	16	..	..	..	9·1	..	14·3	..
3	Ear	13	..	..	..	7·4	..	3·0	..
4	Nose	4	..	..	..	2·3	..	·5	..
5	Circulatory system ..	33	..	..	..	18·7	..	8·5	1·37
6	Absorbent „ ..	24	..	..	..	13·6	..	14·5	..
7	Ductless Glands ..	..	..	..	..	..	..		..
8	Respiratory system ..	166	3	..	3	94·3	1·70	74·2	1·76
9	Digestive „ ..	233	1	..	1	132·4	·57	81·9	·40
10	Urinary „ ..	90	..	..	..	51·1	..	71·9	·26
11	Generative „ ..	10	..	..	..	5·7	..	9·8	..
12	Organs of Locomotion ..	9	..	..	..	5·1	..	4·4	·09
13	Cellular Tissue	34	..	..	..	19·3	..	20·0	·04
14	Cutaneous system ..	86	..	..	..	48·9	..	50·9	·04
	III. *Conditions, &c.*								
	Debility	3	..	..	..	1·7	..	4·1	..
	IV. *Poisons* ..	17	1	..	1	9·7	·57	8·7	·40
	V. *Injuries.*								
2	Accidental	182	..	..	..	103·4	..	89·2	·79
3	Homicidal	..	1	..	1	..	·57	3	·09
4	Self-inflicted	..	..	..	..	..	..		·48
	VI. *Surgical Operations*	1	..	..	..	·6	..	·4	·04
	No appreciable disease ..	1	..	..	..	·6	..	·6	..
	Total	1,084	7	1	8	615·9	4·55	613·8	8·32
	Average of 10 years, 1866–75.. ..	..	..	..	..	642·1	9·27	..	..

General Diseases.—In both groups of this class there is an important reduction in the rate of admissions on that of the preceding year.

The admissions and deaths from the principal diseases in the class are shown in the following Table:—

Dominion of Canada.

Diseases.	Admitted.	Died.	Ratio per 1,000 of Strength. 1876. Admitted.	1876. Died.	1869-75. Admitted.	1869-75. Died.
Febrile—						
Eruptive Fevers	7	..	4·0	..	2·1	·04
Continued ,, ...	12	..	6·8	..	17·2	·36
Paroxysmal ,, ...	..	..	..	..	4·6	..
Choleraic Diarrhœa	1	..	·6	..	·2	..
Influenza	24	..	13·6	..	9·5	..
Erysipelas	4	..	2·3	..	4·4	·09
Other diseases	..	..	..	..	1·0	·04
Total of Febrile Group	48	..	27·3	..	39·0	·53
Constitutional—						
Rheumatism	49	..	27·8	..	37·0	..
Syphilis	29	..	16·5	..	63·1	·04
Scrofula, Phthisis, &c.	11	2	6·2	1·14	5·8	1·10
Scurvy and Purpura	1	..	·6	..	·5	..
Anæmia	..	..	..	..	·5	..
Other diseases	..	..	..	..	1·2	·14
Total of Constitutional Group ..	90	2	51·1	1·14	108·1	1·28

Eruptive Fevers.—Of the admissions in this group 2 were due to scarlet fever, and 5 to measles.

Continued Fevers.—The rate of admissions is only the half of that for the preceding year.

Choleraic Diarrhœa.—One admission for this disease (which is stated by the principal medical officer to be of common occurrence amongst the civil population in the hot season) took place.

Influenza, &c.—The rate of admissions is less than the half of that for 1875; but the admissions were in excess in that year.

Erysipelas.—The proportion of admissions is only the half of that of the preceding year, and no unequal prevalence of the disease in any corps is to be noticed.

Rheumatism.—The rate of admissions is 23·3 per 1,000 men lower, or little more than half the rate for 1875.

Syphilis.—The rate of prevalence of this disease is nearly the same as that for the preceding year.

Scrofula, Phthisis, &c.—The admissions are in a slightly lower rate than that for 1875.

Local Diseases. *Diseases of the Nervous System.*—Nearly half of the admissions in this order were on account of neuralgia.

Diseases of the Eye, were in less than half the proportion of the preceding year.

Diseases of the Circulatory System.—The rate of admissions is 4·5 per 1,000 lower than that of 1875; two-thirds of the admissions for all diseases in this order were on account of palpitation, a disease of more frequent occurrence in the 87th than in any other Regiment, but most of the corps in the Command return admissions from it.

Respiratory System.—There is a small reduction in the rate of admissions on that of the preceding year, in conjunction with which there is a lower death rate.

Diseases of the Digestive System.—There is an increase of 17·8 per 1,000

men in the rate of admissions on that of 1875; nearly half of the admissions was due to tonsillitis, and of the remainder more than half was on account of dyspepsia. The death in this order was caused by dysentery, and was that of a man of the 1st Battalion 20th Foot, whose illness was not contracted in the Command. *Dominion of Canada.*

Poisons.—The rate of admissions is higher than that for 1875; *delirium tremens* caused 7 admissions; and *alcohol*, taken in a poisonous quantity, 10.

INJURIES.—*Accidental.*—The rate of admissions from injuries of this nature is 18·9 per 1,000 men lower than in the preceding year. *Homicidal.*—The death in this order was from a fracture of the skull, by a kick.

Officers.

In an average annual strength of 84 officers, there were 49 attacks of illness and 2 deaths, being in the proportions of 583·3 and 23·81 per 1,000 of the strength respectively. One of the deaths is returned as due to congestion of the liver, the other was a sudden death, the cause of which is not stated.

Two officers were invalided during the year.

Women.

In an average annual strength of 193 women, there were 55 attacks of sickness, being in the rate of 285·0 per 1,000 of the strength. No illness was fatal.

Children.

In a strength of 408 children of non-commissioned officers and men, there were 244 attacks of sickness and 20 deaths, being in the rates of 598·0 and of 49·02 per 1,000 of the strength respectively. 139 of the illnesses were from measles, 8 were from hooping-cough, 2 are returned as due to remittent fever, 1 to diphtheria, and 4 to croup. The death-rate exceeds that of the children in the Command for the preceding year by 22·19, and it exceeds the average of that of persons (presumably of the same ages) in England by 21·80 per 1,000 of the strength. Of the deaths 1 was due to measles, 1 to remittent fever, 1 to diphtheria, 2 to hooping-cough, 1 to croup, 2 to convulsions, 5 to bronchitis or pneumonia, 3 to diarrhœa, and 4 to debility, one of them being congenital weakness.

SANITARY REPORT.

Deputy Surgeon-General Shelton reports that "the health of the troops in the Dominion of Canada has been very good during the year 1876. Although the strength considerably exceeded that of the preceding year, the admissions to hospital were fewer; and the ratio of deaths due to disease was only 2·84 per mille. The invaliding, however, exceeded that of 1875 by 12 men.

"All the medical officers concur with me in thinking that the ablution-rooms in the several barracks should be furnished with hot water during the cold weather.

"*Hospital.*—There is abundant accommodation in hospital for ordinary cases of sickness, but the want of an isolated hospital for infectious cases—both for soldiers, women, and children—is much felt, as in the event of an epidemic there is really no suitable building available. The few cases of infectious diseases in soldiers have hitherto been treated in separate wards in the Station Hospital, a course attended with some risk, and the sick women and children have been received into the 'Clock Tower' building, which has been temporarily handed over to the Medical Department when required. A small hospital for such cases would render our hospital establishment complete.

"*Drainage.*—The elevated situation of the several barracks (some 234 feet above sea level), added to other conditions, secures excellent drainage.

"*Barracks.*—The barracks occupied by the troops consist of those in the citadel casemates and rooms in the Cavalier (masonry), the Glacis Barracks

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(built of wood), the Wellington Barracks (brick), and the Artillery Park and South Barracks (both of wood). The troops occupying the first-named are uniformly the more healthy body, even though the general conditions of case-mated rooms would not appear to favour this result.

"*Latrines.*—Some difficulty exists in keeping the latrines clean owing to their construction, but much attention is paid to them, and with fair success.

"There are no marked sanitary defects to be noticed, and minor ones—such as the absence of verandahs, double windows, &c.—have been or are proposed to be rectified.

"*Movement of Troops.*—Some suffering, if not sickness, has been caused by the late period of the year at which reliefs arrive, by reason of the vicissitudes of climate, from Bermuda to Nova Scotia. It must, however, be considered on the other hand, that those men landing at Bermuda from Halifax, are exempted from the effects of the hot climate by reaching that place at a comparatively cool season of the year. The suffering would be diminished if arrangements were made by officers commanding regiments for immediate issue to each man on landing such articles of warm clothing as Government advances them money to purchase.

"*Guards.*—A garrison order has been issued directing officers commanding corps to make arrangements so that the men on guard might be supplied with hot coffee or chocolate during the winter months.

"*Clothing, &c.*—No change has been made in the clothing of the troops during the year;—it is suitable to the climate. Extra blankets are issued to the troops when the severity of the weather requires it. A skating rink (uncovered) has been made in the Glacis Barrack enclosure; this affords the men the means for outdoor exercise and amusement in winter.

"The following alterations and improvements have been carried out during the year 1876:—

"*Artillery Park Barracks.*—The surface drainage has been improved.

"*Citadel.*—The lighting has been improved in four officers' quarters; additional accommodation for 80 men has been secured by raising the roof of the Cavalier. The lighting of the casemated rooms has been improved, as also the flues, and a storehouse for coals for the winter months has also been provided.

"*Wellington Barracks.*—The important addition of married quarters for 12 families has been made, and will be ready for occupation early next year. The drying apparatus in the women's washhouse has been rendered efficient by the addition of a chimney shaft. The lighting and ventilation in the boys' school-room have been improved; double window-sashes have been added to half the barrack-rooms."

Surgeon-Major Oliver has called attention, in an annual sanitary report, to a simple device by which all "boilers" (of either the old or new pattern) in military kitchens may be converted into "steamers"; and by means of which also, the accumulation of steam in those places is effectually prevented at a trifling expense.

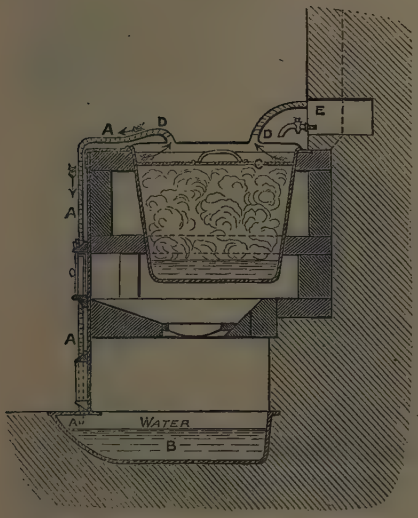
If the boiler should be of the old pattern, having a lid with a steam funnel leading to a condenser in the wall, it will only be necessary to furnish it with a *second inner* wooden or galvanized iron lid, made to fit and rest in the boiler, two inches beneath the original cover. This will retain the steam in the boiler for any culinary purpose required, and all steam that escapes from beneath this *inner* lid will he conducted by the *outer* cover and funnel into the condenser, and so prevented accumulating in the kitchen, as it does at present on all occasions when it is necessary to stop the steam funnels to retain steam in boiler.

Should the boiler be of the new pattern (Deane's), see Figs. 1, 2 and 3, it will be merely necessary to furnish it with an *outer* instead of an *inner* lid, having a steam funnel leading either to the water tank beneath the fire grate, or to a condenser on, or in, the wall, and which condenser may be made to act efficiently by being used as a conducting tube for the cold water supply pipe of the boiler.

When the boiler is required for boiling purposes, the one (funnel) lid only is needed, and all steam then generated is conducted away by it to the condenser; but, when it is necessary to convert the "boiler" into a "steamer," both lids are used, as already explained. *Dominion of Canada.*

When the boiling process has to be forced and protracted, as in the cooking of pea soup, &c., the funnel lid possesses another special advantage as a "steam extinguisher"; for, by giving free vent to excess of heat and steam, it renders it unnecessary for the lid of the boiler to be altogether removed, as at present, to prevent the contents "boiling over," and which latter, in itself, occasions a serious increase of steam accumulation in the kitchen.

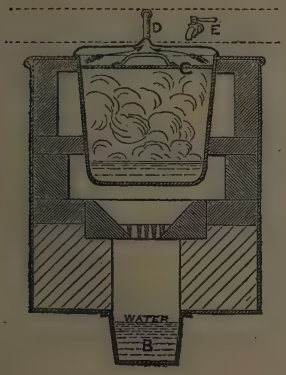
FIG. 1.



ANTROPOSTERIOR SECTION OF BOILER (DEANE'S.)

Shewing A—Tube leading to water in fire-grate.
" B—Water-grate.
" C—Inner lid.
" D—Outer lid showing how steam can be conducted either to grate or condenser E in wall.

FIG. 2.

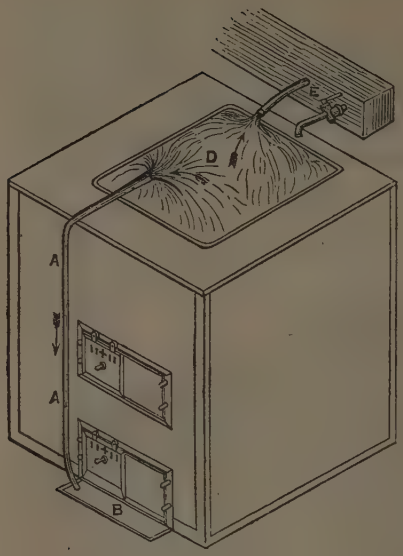


TRANSVERSE SECTION.

C—Inner lid.
D—Outer lid furnished with steam funnel.
E—Condensing tube, with cold water pipe passing through it.

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FIG. 3.



UPPER FRONT VIEW.

One diagram of upper lid is shown in both Figures 1 and 3 acting in two different ways. The lid suggested will, of course, only have *one* steam funnel; and being moveable, can be reversed, and act in either direction as required.

Section II.

On the Extent of Invaliding.

Thirty-six invalids were sent to England during the year, and 19 were finally discharged the service (2 in Canada, and 17 at Netley); the proportion of invalids sent home is fractionally in excess of that of last year, whilst that of invalids finally discharged is fractionally less.

The diseases which necessitated invaliding are shown in the following Table:—

Disabilities.	Invalids sent home from Canada.	Invalids Discharged the Service.	
		In Canada.	At Netley.
Rheumatism	1	..	1
Secondary Syphilis	5	..	..
Scrofula	1	..	..
Phthisis	4	1	..
Paralysis	1	..	..
Mania	1	..	..
Dementia	1	..	..
Neuralgia	2	..	..
Chorea	1	..	1
Conjunctivitis	2	..	..
Impaired Vision	..	..	1
Epistaxis	1	..	..
Deafness	..	..	1
Valve Disease of Heart	3	1	4
Palpitation	3	..	2
Aneurism	1	..	..
Varicose Veins	..	..	1
Enlargement of Glands	2	..	1
Bronchitis	2	..	3
Asthma	1	..	1
Pleurisy	1	..	..
Abscess	1	..	..
General Debility	1	..	..
Sprain	1	..	1
Total	36	2	17
Ratio per 1,000 of Strength 1876	20·45	1·13	9·50
Ratio per 1,000 of Strength 1866–75	17·00	2·53	10·93

Section III.

Mean Daily Sick.

The average number of constantly sick during the year was 51·74, being in the rate of 29·4 per 1,000 of the strength, showing a decrease of 1·0 per 1,000 on that for the preceding year.

The usual information, calculated from these numbers, is given in the following Table :—

	1876.	1866–75.
Ratio per 1,000 of Strength constantly Sick	29·4	31·17
	days.	days.
Average Sick time to each Soldier	10·73	11·38
Average duration of each case of Sickness	17·00	17·68

Compared with the corresponding rates for 1875, that of the average sick time to each soldier, is fractionally less, whilst that of the average duration of each case of sickness is fractionally greater.

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Section IV.

On the Influence of Age on the Mortality.

The death-rates for the several ages (arranged in quinquennial periods) are shown in the following Table :—

	Under 20 Years.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of the Mean Strength (1876	...	5·38	2·93	...	7·87	...
Ratio of deaths per 1,000 of the Mean Strength (1866–75	4·51	5·06	8·51	12·29	17·18	26·82

V.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Bermuda.

The average annual strength of the non-commissioned officers and men serving at Bermuda was 1,934; the admissions into hospital among them were 1,166, the deaths were 15, the average number of sick in hospital throughout the year was 66·42—the rate of admissions is therefore 602·8, that of deaths is 7·76, and that of daily sick is 34·34 per 1,000 of the strength, respectively.

The rate of admissions exceeds that of the preceding year by 1·4 per 1,000 men, the death-rate is 3·29 per 1,000 lower, the average number constantly sick is 1·26 per 1,000 higher.

Some of the most important of the health statistics of the corps which composed the garrison, are shown in the following Table:—

Corps.	Average Annual Strength.	Admissions into Hospital.	Deaths.	Invalids sent Home.	Average daily Sick.	Ratio per 1,000.				Average Sick-time to each Man.	Average Duration of Cases.
						Admissions.	Deaths.	Invalids sent Home.	Daily Sick.		
										Days.	Days.
7th Brig., Royal Artillery ...	203	137	2	7	11·06	674·9	9·85	34·48	54·48	19·89	29·47
Royal Engineers	399	251	6	5	10·81	629·1	15·04	12·53	27·09	9·95	15·72
*1st Battalion 20th Foot ...	526	306	3	19	20·79	581·7	5·70	36·12	39·52	14·43	24·80
†46th Foot	91	56	...	...	2·06	615·4	...	...	22·64	8·26	13·43
‡87th ,, ...	44	28	...	...	1·34	636·4	...	...	30·49	11·12	17·47
§97th ,, ...	604	373	2	26	19·47	617·5	3·31	43·05	32·24	11·77	19·05
Army Service Corps ... ,, Hospital ,, ... Staff, &c.	67	15	2	...	·89	223·9	29·85	...	13·28	4·85	21·65

* Left the Command in November.
† Arrived in the Command in November.
‡ Arrived in the Command in December.
§ Left the Command in December.

ermuda. The admissions and deaths in the various classes and orders of diseases are shown in the following Table :—

Orders.	Diseases.	1876. Average Strength, 1,934. Admitted into Hospital.	Deaths. At Bermuda.	Deaths. Of Invalids.	Deaths. Total.	Annual ratio per 1,000 of Strength. Admitted.	Annual ratio per 1,000 of Strength. Died.	1869–75. Annual ratio per 1,000 of Strength. Admitted.	1869–75. Annual ratio per 1,000 of Strength. Died.
	I. *General Diseases.*								
1	Febrile — Group ..	61	4	..	4	31·5	2·07	76·9	2·35
2	Constitutional „ ..	167	3	..	3	86·3	1·55	76·7	2·13
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	18	2	..	2	9·3	1·03	10·2	1·29
2	Eye	35	..	..	..	18·1	..	20·5	..
3	Ear	10	..	..	..	5·2	..	3·6	..
4	Nose	1	..	..	..	·5	..	·3	..
5	Circulatory System ..	31	3	..	3	16·0	1·55	8·3	1·67
6	Absorbent „ ..	35	..	..	..	18·1	..	11·9	..
8	Respiratory „ ..	88	1	..	1	45·5	·52	35·7	·45
9	Digestive „ ..	224	1	..	1	115·8	·52	164·0	·91
10	Urinary „ ..	52	1	..	1	26·9	·52	29·1	·30
11	Generative „ ..	10	..	..	..	5·2	..	8·7	..
12	Organs of Locomotion ..	7	..	..	..	3·6	..	3·2	.08
13	Cellular Tissue	39	..	..	..	20·2	..	28·4	·08
14	Cutaneous System ..	100	..	..	..	51·7	..	66·2	·08
	III. *Debility* ..	18	..	..	..	9·3	..	7·6	..
	IV. *Poisons* ..	12	..	..	..	6·2	..	20·1	·61
	V. *Injuries.*								
2	Accidental	256	..	..	..	132·4	..	112·4	1·37
3	Self-inflicted	..	..	..	..	..	..	·6	·99
	VI. *Surgical Operations* ..	..	..	..	..	..	..	·1	..
	No appreciable disease ..	2	..	..	..	1·0	..	·5	..
	Total	1,166	15	..	15	602·8	7·76	685·0	12·31
	Average of 10 years, 1866-75	..	..	..	..	706·0	14·73	..	..

General Diseases.—The proportion of diseases in this class is less by 16·3 per 1,000 men, than in the preceding year; the whole of the decrease is in the *febrile group.* The *constitutional group* shows a higher rate; with a decreased prevalence of fevers however, the rate of mortality was higher—nearly twice as great,—and, conversely, whilst the prevalence of constitutional diseases was greater, the mortality due to them was less than in 1875.

The admissions and deaths from the principal diseases in this class, are shown in the following Table :—

Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength. 1876. Admitted.	1876. Died.	1869-75. Admitted.	1869-75. Died.
Febrile—						
Eruptive Fevers	1	1	·5	·52	·1	..
Continued „	57	3	29·5	1·55	65·5	2·28
Paroxysmal „	..	..	..	..	1·4	..
Influenza	2	..	1·0	..	9·2	..
Erysipelas	1	..	·5	..	·3	·07
Other diseases	..	..	..	..	·4	..
Total of Febrile Group	61	4	31·5	2·07	76·9	2·35
Constitutional—						
Rheumatism	83	..	42·9	..	35·5	..
Syphilis	62	..	32·0	..	30·9	·07
Scrofula, Phthisis, &c.	18	2	9·3	1·03	8·7	1·90
Anæmia	3	..	1·5	..	·8	..
Other diseases	1	1	·5	·52	·8	·16
Total of Constitutional Group	167	3	86·2	1·55	76·7	2·13

Eruptive Fevers.—The admission in this group was from scarlet fever.

Continued Fevers.—Enteric fever, caused 6 admissions; 3 of the attacks were fatal. Three of the admissions for this form of fever were those of men of the 97th regiment, 1 was from the Royal Artillery, 1 from the Royal Engineers, and 1 from the 1st Battalion 20th Foot. The Medical Officer of the St. George's Station Hospital remarks that enteric fever is endemic in the town, the sanitary state of it being very defective. *Simple continued fever*, caused only 3 admissions; 48 men were admitted for *febricula*, a disease of disproportionately frequent occurrence in the 1st Battalion 20th.

Paroxysmal Fevers.—No admission for any form of paroxysmal fever occurred during the year; it will be seen that the station has almost an immunity from fevers of this kind, the rate of prevalence for seven years being only 1·4 per 1,000 men. This is the more remarkable as the garrison largely consists of men who have previously served in the West India Command.

Rheumatism.—The rate of admissions is one-fourth higher than that for the preceding year.

Syphilis.—The rate of prevalence is a little lower than that for 1875.

Scrofula, Phthisis, &c.—With a higher admission-rate, that of mortality from diseases of this nature is lower than for the preceding year.

Local Diseases.—*Diseases of the Nervous System.*—One-third of the admissions in this order were due to epilepsy, and one-third to neuralgia; the deaths were caused by sunstroke 1, by tumor in the brain 1.

Diseases of the Eye.—The rate of admissions is 2·9 per 1,000 men lower than that for the preceding year, in which however there was a greatly increased prevalence.

Diseases of the Circulatory System.—The rate of admissions is nearly double that for the preceding year; this is due to the large increase in the admissions for palpitation, a disease not considerably more prevalent in one corps than in the others.

Diseases of the Digestive System.—The rate of admissions is 33 per 1,000 men lower than the corresponding one of the preceding year; that of mortality is also lower. Tonsillitis, dyspepsia, and diarrhœa, were the diseases which caused a majority of the admissions in this order, but the occurrence of

Bermuda. dysentery, 15 admissions, and of hepatitis 11, shows the distinctly tropical character impressed on the illnesses of men serving in the Command; in one instance, hepatic abscess was a sequel of the last-named disease.

Urinary System.—The number of admissions is exactly the same as in the preceding year, and the rate of prevalence is only fractionally different.

Poisons.—The rate of prevalence is the same as that for the preceding year; 10 of the admissions were due to delirium tremens, and 2 to accidental poisoning, in one instance by oxalic acid, in the other by castor-oil seeds.

Injuries.—*Accidental.*—The rate of admissions exceeds that for 1875 by 21 per 1,000 men.

Officers.

In an annual average strength of 98 officers there were 26 attacks of illness, being in the rate of 265·3 per 1,000 of the strength; no officer died. One officer was invalided.

Women.

In an average annual strength of 203 wives of non-commissioned officers and men, only 49 attacks of illness are returned. There were 2 deaths, being in the rate of 9·85 per 1,000 of the strength; 1 was due to phthisis and 1 to pneumonia.

Children.

In an average annual strength of 388 children of non-commissioned officers and men, there were 93 attacks of illness, being in the rate of 239·7 per 1,000 of the strength, and 16 deaths, being in the rate of 41·24 per 1,000. This exceeds the death-rate of persons in England, presumably of the same ages, by 14·02 per 1,000. The more important kinds of diseases affecting the children in the Command, during the year, were hooping cough 20 attacks, and diarrhœa 28. There were only 3 attacks of eruptive fever, namely, scarlet fever. Only 1 attack of enteric fever is returned, but the fact of a relatively large mortality from diarrhœa, coupled with the fact that enteric fever, prevailed both amongst the men and in the civil population, requires to be kept in view in connexion with this comparative exemption of the class most susceptible to the invasion of the disease. The deaths were due to hooping-cough 1, hydrocephalus 1, convulsions and teething 3, diarrhœa 8, constipation 1, general debility 2.

SANITARY REPORT.

Deputy Surgeon-General Sinclair reports that "the general state of health of the troops serving in the Bermuda Command during the year 1876 has been good; no particular disease has prevailed, and there has been no epidemic.

"A few cases of enteric fever occurred among the men of the Royal Artillery and 97th Regiment at St. George's, which Surgeon-Major O'Farrell considered were due to the supply of water for flushing purposes being occasionally intermittent, and thus allowing foul gases to accumulate in the drains. Every effort has since been made to have a continuous supply, and the disease has not spread.

"One case of enteric fever proved fatal at Boaz, and was attributed by Surgeon Sanders to the man having been employed in cleaning out a choked and offensive drain, I made a careful inspection of the drainage of Boaz at the time, and found several imperfections. The situation is low, and the drains have been constructed too large to be properly flushed. The Royal Engineer Department have introduced several ventilators, and cut off the connection with the barrack buildings, and no further cases of fever occurred. The drainage of Boaz will probably have to be entirely relaid.

"Intemperance continues to be an important cause of disease.

Bermuda.

"The barrack accommodation is insufficient for the number of troops in the island, and a large number of the Royal Artillery are always under canvas at St. George's. Their health does not appear to have materially suffered, but it is very desirable for their comfort that hut or barrack accommodation should be provided for them, as during stormy weather the tents are occasionally blown down, and the men's clothing and kits become wetted with rain.

"The accommodation for married soldiers and their families is also very limited at St. George's.

"Medical officers report that all sanitary arrangements in connection with barracks and hospitals have been satisfactorily carried out; that the conservancy is effective, and cleanliness carefully attended to; that the means of ablution is sufficient and regularly used; that the water supply is good and sufficient in quantity, stored in tanks above ground, so that there can be no soakage; that the quality of the bread and meat is excellent, and the men well satisfied with the way in which their food is prepared; that the duties are light, and the men chiefly employed on the public works with advantage to their health. There is no gymnasium in the islands, but cricket is much played.

"The station hospitals are in good working order, and sufficient for the requirements of the sick. A women's hospital is much required at Prospect, which is a camp, and the married people occupy huts. A hut for infectious diseases occurring amongst women and children should be erected in the vicinity of each of the men's hospitals for infectious diseases. Women and children are often the first victims of epidemic disease, and unless the early cases can be isolated the infection rapidly extends to the men.

"The following sanitary improvements are being effected:—The water supply to the huts at St. George's is to be increased by the construction of an additional tank. Two blocks of the new barracks at St. George's are now complete and occupied by the 87th Regiment. The soldiers' latrines and urinals at Ireland Island are to be reconstructed. At Boaz improvements have been made to the drainage generally, and the married quarters are being ventilated. A swimming-bath for the men at Prospect has been completed at Navy Wells. Steps are being taken to remedy the defects noted in the annual inspection reports."

Section II.

On the Extent of Invaliding.

Fifty-seven invalids were sent home from the Command, and 22 were discharged the service at Netley during the year. The proportion of invalids sent home is 9·54 per 1,000, or one-third higher than that for 1875; that of men finally discharged is fractionally higher.

The classes and orders of diseases to which the invaliding was due are shown in the following Table:—

Bermuda.

Class.	Order.	Diseases.	Invalids sent Home.	Discharged the Service at Home.
I.	2	Rheumatism	2	1
		Secondary Syphilis	4	2
		Scrofula	1	..
		Phthisis	13	..
		Diseases of the—		
II.	1	Nervous System	2	1
	2	Eye	6	2
	3	Ear	2	2
	5	Circulatory System	9	6
	6	Absorbent „	1	..
	8	Respiratory „	1	..
	9	Digestive „	4	1
	10	Urinary „	3	2
	12	Locomotive „	1	..
	14	Cutaneous „	..	2
III.		*Debility*	6	..
V.		*Injuries*	2	1
VI.		*Surgical Operations*	..	2
		Total	57	22
		Ratio per 1,000 of Strength { 1876 ..	29·47	11·37
		Ratio per 1,000 of Strength { 1866–75 ..	22·47	14·21

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men in hospital daily throughout the year, was 66·42.

Certain particulars, calculated from the number of constantly sick, are shown in the following Table:—

	1876.	1866–75.
Ratio per 1,000 of Strength constantly Sick ..	34·34	35·47
	Days.	Days.
Average Sick time to each Soldier	12·54	12·94
Average duration of each case of Sickness.. ..	20·79	18·33

All the rates are fractionally higher than those for 1875.

Section IV.

On the Influence of Age on the Mortality.

The rates of mortality for the several ages, arranged in quinquennial periods, are shown in the following Table:—

	Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of mean strength { 1876 ..	..	2·71	8·66	..	..	66·66
Ratio of deaths per 1,000 of mean strength { 1866–75	4·07	7·11	12·36	21·51	30·19	14·63

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST INDIES.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.*

I. White Troops.

West Indies Command.

In an annual average strength of 1,086 non-commissioned officers and men, there were 823 admissions into hospital, and, including that of an invalid on his passage home, 4 deaths, the average number of constantly sick was 44·95; the admissions are therefore in the rate of 757·8, the deaths of 3·68, and the constantly sick of 41·44 per 1,000 of the mean annual strength respectively. Compared with the corresponding rate of the preceding year, that of admissions is lower by 84·8, that of deaths by 5·16, and that of constantly sick by ·34 per 1,000 men.

The troops in the Command consisted of the 5th and 6th Batteries of the 7th Brigade Royal Artillery, of the 35th Foot, and of details of the Royal Engineers, Army Hospital Corps and Garrison Staff, and of Staff Sergeants of the West Indian Regiments, and of the Military Labourers. The stations occupied were Barbados, Trinidad, and Jamaica.

* Compiled from the Monthly Returns of the Command.

West Indies Command.

The admissions and deaths in the various classes and orders of diseases, are shown in the following Table :—

Orders.	White Troops. Diseases.	1876. Strength, 1,086. Admitted.	Died. In West Indies.	Died. Of Invalids.	Died. Total.	1876. Ratio per 1,000. Admitted.	1876. Ratio per 1,000. Died.	1869-75. Ratio per 1,000. Admitted.	1869-75. Ratio per 1,000. Died.
	I. *General Diseases.*								
1	Febrile Group	113	..	..	..	104·1	..	191·2	4·94
2	Constitutional „	28	..	1	1	30·2	·92	106·8	2·08
	II. *Local Diseases.*								
1	Nervous System ..	13	1	..	1	12·0	·92	11·6	·88
2	Eye	7	..	..	..	6·4	..	11·5	..
3	Ear	2	..	..	..	1·8	..	8·8	..
4	Nose	..	..	..	..	..	..	·5	..
5	Circulatory System .	11	1	..	1	10·1	·92	12·1	·99
6	Absorbent „ ..	13	..	..	..	13·8	..	21·7	..
7	Ductless Glands ..	..	..	..	..	..	..	·2	..
8	Respiratory System .	32	..	..	..	29·5	..	32·9	·22
9	Digestive „ ..	163	1	..	1	150·1	·92	122·7	·66
10	Urinary „ ..	70	..	..	..	64·5	..	102·5	·11
11	Generative „ ..	19	..	..	..	17·5	..	13·6	..
12	Organs of Locomotion	6	..	..	..	5·5	..	5·3	..
13	Cellular Tissue ..	15	..	..	..	13·8	..	26·8	..
14	Cutaneous System ..	107	..	..	..	98·5	..	84·3	..
	III. *Conditions, &c.*								
	Debility	26	..	..	..	23·9	..	10·2	·11
	IV. *Poisons* ..	5	..	..	..	4·6	..	20·8	·66
	V. *Injuries.*								
2	Accidental	120	..	..	..	110·6	..	123·4	·77
4	Self-inflicted ..	..	..	..	..	..	..	·3	·22
	VI. *Surgical Operations*	1	..	..	..	·9	..	·2	..
	No appreciable disease	..	..	..	..	..	..	1·1	..
	Total	823	3	1	4	757·8	3·68	911·5	11·64
	Average of 10 years, 1866–75	..	..	..	..	998·6	16·47	..	..

General Diseases.—The rate of admissions is 27·6 per 1,000 men lower than in 1875 ; the whole of the reduction is in the *constitutional group ;* the rate for the *febrile group*, is higher.

The admissions and deaths from the principal diseases in this class, are shown in the following Table :—

West Indies Command.

White Troops. General Diseases.	1876. Strength 1,086		1876. Ratio per 1,000.		1869–75. Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	·8	..
Continued ,,	93	..	85·6	..	125·5	2·19
Yellow ,,	..	..	..	..	4·3	1·65
Paroxysmal ,,	17	..	15·7	..	59·2	1·10
Influenza	1	..	·9	..	2·2	..
Erysipelas	1	..	·9	..	1·2	..
Other diseases	1	..	·9	..	1·0	..
Total of Febrile Group	113	..	104·0	..	194·2	4·94
Constitutional—						
Rheumatism	28	..	25·8	..	21·1	..
Syphilis	61	..	56·1	..	64·4	..
Scrofula, Phthisis, &c.	5	1	4·6	·92	8·7	2·08
Scurvy and Purpura	..	..	..	..	·1	..
Anæmia	4	..	3·7	..	11·2	..
Other diseases	..	..	..	..	1·3	..
Total of Constitutional Group	98	1	90·2	·92	106·8	2·08

Continued Fevers.—The rate of admissions is 20·2 per 1,000 men higher than in the preceding year.

Enteric Fever, caused only 1 admission.

Simple Continued Fever, and Febricula, together caused 92 admissions, the greatest prevalence being in the second quarter of the year; no attack ended fatally.

Paroxysmal Fevers.—The rate of admissions is 8·2 per 1,000 men lower than that of 1875. There were 6 admissions for *remittent fever;* all the others were for *ague.*

Rheumatism.—The rate of prevalence is 5·1 per 1,000 men lower than in the preceding year.

Syphilis.—The rate of admissions is 17·3 per 1,000 men lower than in the preceding year.

Scrofula, Phthisis, &c.—The proportional prevalence is little more than the half of that of 1875.

Local Diseases.—Each group of diseases in this class shows a lower rate than in the preceding year, except that of diseases of the *cutaneous system.* The most important reductions are in those of the *absorbent, respiratory,* and *urinary* systems. For diseases of the *digestive* system the decrease is only 2·9 per 1,000 men, but the rate of mortality from them is little more than one-fourth of that in 1875.

Conditions, &c.—*Debility.*—The rate of admissions is more than double that of the preceding year.

Poisons.—The rate of admissions is 0·9 per 1,000 men lower than in 1875.

Injuries.—*Accidental.*—The rate of admissions is 4·4 per 1,000 men lower than in 1875.

West Indies Command.

II. Black Troops.*

The Black Troops serving in the Command, consisted of a wing of the 1st West India Regiment, of the 2nd West India Regiment, and of a detachment of Military Labourers.

The stations occupied were, Demerara, Trinidad, Barbados, Jamaica, Honduras, and Bahamas; for a short time also a detachment was stationed at Tobago.

The average annual strength of the force was 1,020 non-commissioned officers and men (exclusive of White Staff Sergeants), the admissions into hospital were 1,214, the deaths 19, and the average number of constantly sick 57; the proportions given by these numbers are, for admissions 1,190, for deaths 18·62, and for constantly sick 55·88 per 1,000 of the strength respectively. Contrasted with the corresponding proportions of the preceding year, that of admissions is 174·5 per 1,000 men higher, that of deaths is 1·45 higher, but the constantly sick rate is 2·93 per 1,000 lower.

The admissions in the different classes and orders of diseases, are shown in the following Table :—

Orders.	Black Troops. Diseases.	1876. Strength 1,020. Admitted.	1876. Strength 1,020. Died.	1876. Ratio per 1,000. Admitted.	1876. Ratio per 1,000. Died.	1869–75. Ratio per 1,000. Admitted.	1869–75. Ratio per 1,000. Died.
	I. *General Diseases.*						
1	Febrile Group	289	2	283·3	1·96	168·3	2·26
2	Constitutional „	256	11	251·0	10·78	245·4	8·33
	II. *Local Diseases.* Diseases of the—						
1	Nervous System	13	..	12·7	..	19·7	1·44
2	Eye	21	..	20·6	..	17·7	..
3	Ear	5	..	4·9	..	2·6	..
4	Nose	..	..	..	..	·8	..
5	Circulatory System	18	1	17·6	·98	9·0	1·65
6	Absorbent „	14	..	13·7	..	23·0	..
8	Respiratory „	66	1	64·7	·98	59·2	2·58
9	Digestive „	97	1	95·1	·98	91·7	1·54
10	Urinary „	179	2	175·6	1·96	136·7	·82
11	Generative „	32	..	31·4	..	21·6	..
12	Organs of Locomotion	6	..	5·9	..	11·4	·41
13	Cellular Tissue	37	1	36·3	·98	21·5	..
14	Cutaneous System	93	..	91·2	..	81·8	..
	III. *Conditions, &c.*						
	Debility	5	..	4·9	..	4·6	·10
	IV. *Poisons*	2	..	2·0	..	3·0	·21
	V. *Injuries.*						
1	Battle	..	..	..	..	1·3	..
2	Accidental	79	..	77·1	..	99·0	·41
4	Self-inflicted	1	..	1·0	..	·1	·62
	VI. *Surgical Operations.*	..	..	..	..	1·1	..
	No appreciable disease	1	..	1·0	..	·9	·10
	Total	1,214	19	1190·0	18·62	1020·4	20·47
	Average of 10 years, 1866-75..	..	..	1058·3	22·01	..	..

* Compiled from the Monthly Returns of the Command.

GENERAL DISEASES.—The rate of admissions for diseases of this class is 134·5 per 1,000 men higher than in 1875; the whole of the excess is in the *febrile group;* for diseases of the *constitutional group*, there is a decrease of 27· per 1,000 men. The rate of mortality for the class is higher than that for the preceding year by 1·30 per 1,000 men. The rate of the *febrile group*, is less than the half of that of 1875, whilst for the *constitutional group*, there is an increase of 4·24 per 1,000 men.

The admissions and deaths from the principal diseases of this class, are shown in the following Table :—

Black Troops.	1876.				1869–75.	
	Strength, 1,020.		Ratio per 1,000		Ratio per 1,000	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile Group—						
Eruptive Fevers	1	..	1·0	..	5·5	·10
Continued „	65	..	63·7	..	44·6	·82
Yellow „	..	..	..	..	·6	·10
Paroxysmal „	220	2	215·7	1·96	111·2	1·14
Influenza..	..	..	..	..	1·3	..
Erysipelas	3	..	2·9	..	·1	..
Other diseases	..	..	..	..	5·0	·10
Total of Febrile Group	289	2	283·3	1·96	168·3	2·26
Constitutional Group—						
Rheumatism	85	..	83·3	..	68·5	·10
Syphilis	148	..	145·1	..	147·7	·21
Scrofula, Phthisis, &c.	21	11	20·6	10·78	26·8	7·92
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	2	..	2·0	..	1·4	..
Other diseases	..	..	..	..	·8	·10
Total of Constitutional Group ..	256	11	251·0	10·78	245·4	8·33

Eruptive Fevers.—The admission was for measles.

Continued Fevers.—The rate of admissions exceeds that of the preceding year by 38·4 per 1,000 men, being considerably more than double.

Paroxysmal Fevers.—The rate of admissions exceeds that for the preceding year by 125·7 per 1,000 men.

Rheumatism.—The rate of admissions exceeds that for 1875 by 17·1 per 1,000 men.

Syphilis.—The rate of admissions is lower by 36·9 per 1,000 men, than that of the preceding year.

Scrofula, Phthisis, &c.—Whilst the rate of admissions is lower than that of the preceding year by 8·8 per 1,000 men, the rate of deaths is 4·24 per 1,000 higher. The rate of prevalence of diseases of this nature is more than four times higher, and the rate of deaths is more than ten times higher than in the case of the White Troops serving in the West India Command, in the present year.

LOCAL DISEASES.—The rates of prevalence of *diseases of the nervous system, of the eye, of the absorbent system,* and *of the organs of locomotion*, are lower than the corresponding ones for 1875, whilst the rates for diseases of the *circulatory, respiratory, digestive, urinary, generative,* and *cutaneous systems*,

West Indies Command.

and for *diseases of the cellular tissue*, are higher; for the *respiratory* system, the increase amounts 23·, and for the *urinary* system, to 32·5 per 1,000 men; in each of the other instances the increase is not material.

INJURIES.—*Accidental.*—The rate of admissions is lower than in 1875, by 20·2 per 1,000 men.

Section II.

On the Extent of Invaliding.

Five non-commissioned officers and men of the White Troops were invalided home, and 4 invalids from the Command were finally discharged the service at Netley during the year.

38 non-commissioned officers and men of the Black Troops serving in the West India and in the West Africa Settlements Commands, were discharged the Service during the year.

	White Troops.		Black Troops.
	Windward and Leward Islands Command.		West Indies and West Africa Settlements.
Mean Strength	1,086.		1,372.
Classes of Disabilities.	Invalids sent Home.	Discharged as Invalids at Netley.	Discharged as Invalids in the Colonies.
I. *General Diseases.*	The diseases from which the 5 invalids who were sent home suffered, are not specified in the returns.		The diseases from which the 31 men who were invalided in the West Indian Command suffered, are not specified in the returns.
Constitutional Group ..		2	
II. *Local Diseases.*			
Diseases of the—			
Digestive System		1	
Organs of Locomotion ..		1	
General Total	5	4	38
Ratio per 1,000 of Mean Strength { 1876 ..	4·60	3·68	27·70
Ratio per 1,000 of Mean Strength { 1866-75	28·14	12·96	17·25

Section III.

Mean Daily Sick.

The average number of White Soldiers constantly in hospital, was 45 ; the average number of Black Soldiers was 57.

The usual information calculated from these numbers is given in the following Table :—

		White Troops.	Black Troops.
Ratio per 1,000 of Strength constantly Sick.	1876 ..	41·44	55·88
	1866–75 ..	43·96	57·15
Mean Sick time to each Soldier.	1876 ..	15·12	20·40
	1866–75 ..	16·04	20·86
Average duration of each case of Sickness	1876 ..	19·96	17·14
	1866–75 ..	16·07	19·72

Section IV.

On the Influence of Age on the Mortality.

The data for the compilation of this information are not contained in the Monthly Returns.

VII.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST AFRICA SETTLEMENTS COMMAND.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

1. White Troops.

West Africa. The average annual strength of the European non-commissioned officers serving in the Command was 10; the admissions into hospital amongst them were 18; no death occurred; two staff-serjeants were invalided; the average daily sick was ·69.

The admissions were mostly due to paroxysmal fevers.

2.—Black Troops.

The Black Troops in the Command consisted of the service companies of the 1st West India Regiment, stationed at Sierra Leone, and at Cape Coast.

The average strength of the Black Troops was 525; the admissions into hospital amongst them were 738; the deaths were 8; the average of constantly sick was 29·48. The rates given by these numbers are, for admissions, 1405·7; for deaths, 15·22; and for constantly sick, 56·15 per 1,000 of the strength respectively. The rate of admissions is one-seventh higher, that of deaths is a fifth lower than the corresponding rate of the preceding year.

For the Sierra Leone station the admission rate is 1545·4 per 1,000 of the strength, and the death-rate is 14·21; for the Cape Coast station the admission rate is 1127·8, and the death-rate 11·63 per 1,000.

The admissions and deaths in each class and order of diseases are shown in the following Table:—

Orders.	Black Troops. Diseases.	1876. Mean Strength. 525. Admitted.	1876. Mean Strength. 525. Died.	1876. Ratio per 1,000. Admitted.	1876. Ratio per 1,000. Died.	1869–75. Ratio per 1,000. Admitted.	1869–75. Ratio per 1,000. Died.
	I. *General Diseases.*						
1	Febrile Group	225	1	428·6	1·90	513·7	6·11
2	Constitutional „	157	4	299·0	7·62	244·3	7·12
	II. *Local Diseases.* Diseases of the—						
1	Nervous System	5	..	9·5	..	16·8	2·80
2	Eye	6	..	11·4	..	22·1	..
3	Ear	5	..	9·5	..	2·0	..
4	Nose	..	..	..	..	·8	..
5	Circulatory System ..	3	1	5·7	1·90	7·1	1·02
6	Absorbent „ ..	18	..	34·3	..	15·3	..
8	Respiratory „ ..	25	..	47·6	..	96·4	4·33
9	Digestive „ ..	72	1	137·1	1·90	211·2	9·16
10	Urinary „ ..	79	1	150·5	1·90	110·9	·76
11	Generative „ ..	14	..	26·7	..	24·4	..
12	Organs of Locomotion ..	5	..	9·5	..	15·0	·51
13	Cellular Tissue	14	..	26·7	..	48·1	·51
14	Cutaneous System ..	69	..	131·4	..	136·4	..
	III. *Conditions, &c.*						
	Debility	3	..	5·7	..	13·0	..
	IV. *Poisons* ..	1	..	1·9	..	1·0	..
	V. *Injuries.*						
1	Battle	..	..	..	..	17·8	1·78
2	Accidental	36	..	68·7	..	84·5	1·02
3	Homicidal	..	..	..	..	·3	·25
4	Self-inflicted	..	..	..	..	1·0	..
5	Judicial	..	..	..	..	·8	..
	IV. *Surgical Operations* ..	..	..	..	..	·5	..
	Not stated	..	..	..	..	1·3	..
	No appreciable disease ..	1	..	1·9	..	·3	..
	Total	738	8	1405·7	15·22	1585·0	35·37
	Average of 10 years, 1866-75	..	..	1514·4	36·44	..	..

General Diseases.—The rate of admissions of diseases of the *febrile group* is 149· per 1,000 higher than that of the preceding year, but is 23·9 per 1,000 lower for that of the *constitutional group*.

The admissions and deaths from the principal diseases in this class are shown in the following Table :—

West Africa.

Black Troops. General Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength, 1876. Admitted.	Died.
Febrile Group—				
Eruptive Fevers	1	..	1·9	..
Paroxysmal ,, ...	200	1	381·0	1·90
Other diseases	24	..	45·7	..
Total of Febrile Group	225	1	428·6	1·90
Constitutional Group—				
Rheumatism	33	..	62·9	..
Syphilis	107	..	203·8	..
Scrofula, Phthisis, &c.	12	4	22·9	7·62
Other diseases	5	..	9·5	..
Total of Constitutional Group ..	157	4	299·1	7·62

Eruptive Fevers.—One admission (for chicken-pox) is the only illness returned in this group.

Continued Fevers.—No admission is returned.

Paroxysmal Fevers.—The rate of admissions is 105·1 per 1,000 men higher than that of 1875. Nearly the whole of the admissions in this group took place at Sierra Leone, where the death also happened.

Other Diseases.—All the admissions were for mumps, and they are returned exclusively from the Sierra Leone station.

Rheumatism.—The rate of admissions is less than the half of that of the preceding year.

Syphilis.—The rate of prevalence of this disease exceeds that of 1875 by 55·1 per 1,000 men; only 6 of the admissions took place in the Gold Coast station of the Command.

Scrofula, Phthisis, &c.—With a rate of admissions little more than a-half of that of the preceding year, the death-rate is nearly the same.

Other Diseases.—All the admissions in this group were on account of general dropsy.

Local Diseases.—Diseases of the *nervous system*, of the *eye*, of the *circulatory*, and *respiratory systems*, are in lower proportions than in 1875, the decrease in the instance of the last-named being 38·5. Diseases of the *digestive*, of the *urinary*, and of the *cutaneous systems*, are all in higher rates than those of last year; in the instance of diseases of the *urinary system*, it amounts to 62·4 per 1,000 men.

Poisons.—The admission in this class was due to a snake-bite.

Officers.

The average annual strength of the Officers serving in the Command was 33, amongst whom there were 57 attacks of illness and 1 death; most of the former were owing to paroxysmal fevers. The death was that of an officer from the Cape Coast station, and was due to dysentery. Six Officers were invalided during the year—three on account of fevers, ague in one instance, remittent fever in two; one officer was invalided for dysentery, one on account of hypochondriasis, and one on account of debility.

SANITARY REPORT.

West Africa.

Surgeon-Major Fox reports :—"The sanitary state of the barracks, military hospital, and grounds in their immediate vicinity, has been satisfactory during the year. The drainage, from the natural slope of the ground and porous nature of the soil, is sufficient. The barracks for the men would be much improved by having fireplaces or stoves erected in each room ; the rooms are very damp during the rains, and the men have no way of drying their clothes.

"The cubic accommodation was not increased, with the exception of two rooms on the basement floor, referred to in my report. The ventilation is ample in all the different buildings. The cooking is not sufficiently varied ; soup and boiled meat, supplemented with vegetables, which the men are obliged to purchase themselves, constitute their daily mess. The ovens are unused and useless, not being adapted for the fuel of the country, which is wood.

"The clothing remains the same, and, with the exception of the leggings, appears suitable for the climate of the station and season of the year. The drains around barracks and hospital, &c., that were injured by the heavy rains during the wet season, have all been repaired, and are now in an efficient state."

VIII.—ON THE HEALTH OF THE TROOPS SERVING AT THE CAPE OF GOOD HOPE AND ST. HELENA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Cape of Good Hope and St. Helena.

The average annual strength of the force was 2,739 non-commissioned officers and men, of whom 171 were stationed in St. Helena. The admissions into hospital (in both portions of the Command) were 2,095; the deaths, including that of an invalid on the passage home, were 21. The average number constantly sick was 110. The proportions given by these numbers are—for admissions, 764·9; for deaths, 7·67; and for constantly sick, 40·16 per 1,000 of the mean strength respectively.

The rate of admissions is 10·7 per 1,000 men lower than that of last year, the death rate however is ·37 per 1,000 higher.

For the St. Helena portion of the Command, taken separately, the admission rate is 900·6, and the death rate 5·85 per 1,000 of the mean strength.

The corps of which the force (in the Cape of Good Hope portion of the Command only) consisted, and certain of the most important of their health statistics, are shown separately in the following Table :—

Corps.	Years of Service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Ratio per 1,000 of Strength.			Stations.
						Admitted.	Died.	Invalided.	
Royal Artillery..	..	136	135	1	2	992·7	7·35	14·71	Cape Town, Natal, King William's Town.
Royal Engineers ..	..	69	35	..	2	507·3	..	28·99	Ditto Ditto
2nd Batt., 3rd Foot*	..	64	66	..	..	1031·2	..	..	Cape Town, East London.
1st 13th "	2	847	672	5	9	793·4	5·88	10·63	Natal.
1st " 24th "	2	820	645	7	10	786·6	8·54	12·20	Cape Town, with Detachments at Wynberg and Simon's Town; King William's Town, and East London.
32nd Foot	4	583	383	7	3	657·0	12·01	5·15	King William's Town, with Detachments at East London, &c.
Departmental Corps, Staff, &c.	..	49	5	..	..	..	..	..	

* Arrived in the Command in November.

The admissions and deaths, in the various classes and orders of diseases, are shown in the following Table:— *Cape of Good Hope and St. Helena.*

Order.	Diseases.	1876. Mean Strength, 2,739. Admitted.	Deaths. In Command.	Deaths. Of Invalids.	Deaths. Total.	Ratio per 1,000 Admitted.	Ratio per 1,000 Died.	1869–75. Annual Ratio per 1,000 of Strength. Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	199	2	..	2	72·6	·73	100·4	·70
2	Constitutional „ ..	391	1	1	2	142·8	·73	187·9	2·25
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system	20	1	..	1	7·3	·37	12·8	1·32
2	Eye	100	..	..	..	36·5	..	40·7	..
3	Ear	15	..	..	..	5·5	..	4·7	..
4	Nose	1	..	..	..	·4	..	·4	..
5	Circulatory system ..	33	4	..	4	12·4	1·46	13·1	1·65
6	Absorbent „ ..	48	..	..	..	17·5	..	17·4	..
8	Respiratory „ ..	83	3	..	3	30·3	1·09	33·2	·80
9	Digestive „ ..	271	5	..	5	98·9	1·82	146·8	1·60
10	Urinary „ ..	223	..	..	..	81·4	..	158·1	·10
11	Generative „ ..	16	..	..	..	5·8	..	14·0	..
12	Organs of Locomotion ..	13	..	..	..	4·7	..	5·1	·15
13	Cellular Tissue	57	..	..	..	20·8	..	25·0	..
14	Cutaneous system ..	201	..	..	..	73·3	..	83·3	..
	III. *Conditions, &c.*								
	Debility	17	..	..	..	6·2	..	7·9	·15
	IV. *Poisons* ..	13	2	..	2	4·7	·73	7·3	·35
	V. *Injuries.*								
2	Accidental	389	1	..	1	142·0	·37	128·4	1·25
3	Homicidal	..	..	..	..	..	..	·2	·05
4	Self-inflicted	..	1	..	1	..	·37		·25
	VI. *Surgical Operations*	2	..	..	..	·7	..	·5	..
	No appreciable disease ..	3	..	..	..	1·1	..	1·0	..
	Total	2,095	20	1	21	764·9	7·67	988·2	10·62
	Average of 10 years, 1866-75	..	..	..	..	1030·3	10·74	..	..

General Diseases.—The rate of admissions is lower than that for 1875, by 12·2 per 1,000 men, the whole of the decrease is in the *constitutional* group; in the *febrile* group the rate exceeds that of the preceding year by 17·9 per 1,000.

The admissions and deaths from the principal diseases in the class, are shown in the following Table:—

Cape of Good Hope and St. Helena.

General Diseases.	1876. Mean Strength, 2,739. Admitted.	Deaths. In Command.	Deaths. Of Invalids.	Deaths. Total.	Ratio per 1,000 Admitted.	Ratio per 1,000 Died.	1869-75. Annual Ratio per 1,000 of Strength. Admitted.	Died.
Febrile—								
Eruptive Fevers	1	..	..	..	·4	..	1·4	..
Continued „	140	1	..	1	51·1	·37	41·6	·35
Paroxysmal „	41	1	..	1	14·9	·37	30·0	·25
Cholera	..	..	..	..	..	..	·1	..
Influenza	14	..	..	..	5·1	..	22·6	..
Erysipelas	2	..	..	..	·7	..	3·7	·10
Other diseases	1	..	..	..	·4	..	1·0	..
Total of Febrile Group ..	199	2	..	2	72·6	·74	100·4	·70
Constitutional—								
Rheumatism	133	..	..	..	48·6	..	41·6	·05
Syphilis	243	..	..	..	88·7	..	135·3	·20
Scrofula, Phthisis, &c.	14	1	1	2	5·1	·73	8·6	2·00
Scurvy and Purpura	1	..	..	..	·4	..	·1	..
Anæmia	..	..	..	..	..	..	1·3	..
Other diseases	..	..	..	..	..	..	1·0	..
Total of Constitutional Group	391	1	1	2	142·8	·73	187·9	2·25

Eruptive Fevers.—Only one admission is returned, it was due to measles.

Continued Fevers.—The rate of admissions exceeds that of 1875, by 20·5 per 1,000 men. *Enteric Fever*, caused three admissions; one attack ended fatally.

Paroxysmal Fevers.—The rate of prevalence is a little higher than that for the preceding year; of 41 admissions for fevers of this nature 35 were those of men of the 32nd Regiment.

Erysipelas.—The rate of prevalence is about one-fifth of that of the preceding year.

Rheumatism.—The rate of prevalence is a little lower than in 1875.

Syphilis.—There is a decrease of 26·9 per 1,000 on the rate of prevalence of the preceding year.

Scrofula, Phthisis, &c.—The prevalence of diseases of this nature is in a little higher rate than in 1875, the rate of mortality is also higher.

Local Diseases. *Diseases of the Eye.*—The rate of admissions exceeds that of the preceding year by 4·0 per 1,000 men; excepting 12, all the admissions in this order were on account of conjunctivitis, a disease of disproportionately frequent occurrence in the 1st Battalion of the 13th Foot; respecting it the medical officer remarks, "The Battalion has suffered a good deal from conjunctivitis of a very intractable form, and hardly amenable to any mode of treatment.....Many (of the men admitted) have been in hospital five and six months, and will require to be invalided."

Diseases of the Circulatory System.—The rates of prevalence and of mortality for diseases of this order, are only fractionally different from those of the preceding year; half of the admissions were for palpitation.

Diseases of the Respiratory System.—The rate of prevalence exceeds that of the preceding year by 6·6 per 1,000 men, the rate of mortality is about one-third higher.

Diseases of the Digestive System.—The rate of prevalence is 17·1 per 1,000 men lower than that for the preceding year, but the rate of mortality is nearly five times higher; two of the deaths in this order were caused by dysentery, and three by hepatitis. *Cape of Good Hope and St. Helena.*

Diseases of the Urinary, and of the Cutaneous Systems, are in higher rates of prevalence than the corresponding ones for 1875.

Conditions, &c.—*Debility.*—The rate of admissions for this affection is little more than the half of that for the preceding year.

Injuries.—*Accidental.*—The rate of admissions is only fractionally different from that of 1875, but the rate of mortality is 1·08 per 1,000 men lower, the death was due to drowning. *Self-inflicted.*—The death in this order was by gunshot.

Officers.

The average annual strength of the officers serving in the Command was 92; amongst whom there were 54 attacks of illness and 2 deaths: being in the rates of 587·0 and of 21·74 per 1,000 of the strength respectively. Both of the deaths were from consumption.

Women.

The annual average strength of the wives of the non-commissioned officers and men was 201, amongst them there were 132 attacks of illness and 6 deaths (in the Command), being in the annual rates of 656·7 and of 29·85 per 1,000 of the strength respectively; twelve attacks of illness were of dysentery. The deaths were caused by consumption (3), dysentery (1), cancer (1), and 1 was due to the puerpural state.

Children.

In a strength of 414 children of non-commissioned officers and men, there were 242 attacks of illness and 12 deaths, being in the proportions of 584·5, and of 28·99 per 1,000 of the strength respectively. In point of numbers the more important illnesses were whooping-cough, conjunctivitis, bronchitis, and diarrhœa. The deaths were due to diphtheria (1), convulsions (3), diarrhœa (5), enteritis (1), debility (1), and suffocation (1).

SANITARY REPORT.

Deputy Surgeon-General Woolfreys reports:—"The sanitary state of the several garrisons in the Command during the year 1876 has been satisfactory; the general health of the troops has been good, and there have been no causes of disease particularly affecting health reported by any medical officers. Sanitary defects of urgency, or those not requiring large outlays of public money have been remedied at once; whilst those of no immediate importance have been noted in the annual estimates. *Cape of Good Hope.*

"The prevailing diseases have been, as usual, venereal affections, causing nearly one-fourth of the total admissions during the year. No epidemic has occurred amongst the troops, notwithstanding that influenza and cerebro-spinal meningitis have been prevalent amongst the civil population throughout the colony.

"*Cape Town.*—The Castle Ditch is occupied by one of the principal sewers of the town. It is formed by the junction of three tributary sewers in the Sir Lowry Road, runs as an open sewer along the eastern ditch and empties itself on the beach. Owing to the shifting nature of the sand, especially in summer when there are no storms and floods to wash it away, it collects and forms an embankment, so that the sewage cannot escape into the sea, and is therefore scattered all over the foreshore. Again, owing to the breakwater or some other obstruction in the harbour, the sewage of the town cannot escape out to sea, but at certain states of the tide is thrown back upon the beach at the same spot under the Imhoff Battery. In fact, the sea beach from the Castle to the Hospital is all in a more or less polluted state during the summer months. Representations have been repeatedly made to the municipal authorities but to no purpose, as a very large outlay of money would be

Cape of Good Hope.

required to remedy the evil. The Royal Engineers made an effort to discharge the sewage from the Castle Ditch directly into the sea by laying down wooden troughs to low water mark, but these were carried away, and there is therefore no hope of any permanent good resulting without the co-operation of the town authorities. There is another nuisance in the vicinity of the Castle and Government buildings, viz., the scavengering of the town is brought to a tipping platform situated near, and the exhalations from the trucks are sometimes sickening. This evil is however, I am assured, occupying the attention of the Town Council, and will soon be remedied.

"The Station Hospital main drain, during the prevalence of north-westerly winds or certain states of the tide, sometimes becomes choked at its entrance into the sea with sand.

"*Eastern Frontiers.*—The married soldiers' quarters, for the most part consisting of wattle and daub huts, are badly constructed, in a bad state of repair, damp and ill-ventilated, and unfit for occupation. It is useless to attempt to renovate them. The hospital, too, is small, does not afford sufficient accommodation for the sick of the garrison, and has to be supplemented by marquees. Altogether, the building is objectionable for a hospital. The infant school, tailors' and shoemakers' shops are too small, not giving sufficient cubic space to the occupants.

"*Natal.*—There is a great want of barrack accommodation for the troops, more especially now that an additional regiment has been sent into the Command. The kraal huts that have been erected, to the number of 90, leak during the heavy rains. The married soldiers' quarters, consisting of huts erected by the previous regiments, are for the most part badly constructed, too small, and ill-ventilated. The hospital is bad, too small, and roof—eaten by white ants.

The Sanitary Improvements required :—

"*Cape Town.*—The sewer in Castle Ditch should be covered over. A sea wall should be built by the municipal authorities in front of the Imhoff Battery, and for some distance eastward along the shore, to prevent the sewage from being thrown back upon it. Some plan should be devised to prevent the choking of the drain at Station Hospital.

"*King William's Town.*—New married soldiers' quarters required; also another hospital, infant school, tailors' and shoemakers' shops. Day urinals for barracks are much needed.

"*Natal.*—More barrack accommodation required; new married quarters and hospital.

"Numerous sanitary improvements have been made during the year, but chiefly of a minor character."

SANITARY REPORT.

St. Helena.

Surgeon-Major Herbert, the senior medical officer, reports that there has been a great change at this station during the year. "James's Town, in which is situate the infantry barracks, now almost empty, except for the occupation of a few married families of soldiers, contains the hospital, military prison, and government offices; it is placed in a valley between two high rocky ranges of hills opening out at the head of the valley to the influence of the trade winds,—which probably prevents the outbreak of disease, as the climate here is hot and enervating, and most depressing to those exposed to its influence. On the other hand, Ladder Hill, where the main body of the troops is stationed, is much healthier, being more than 600 feet above the sea level, but it is hot and relaxing during the day from direct solar and radiated rock heat. The nights are cool, except during the very height of summer, which gives it a great superiority over James's Town. High Knoll, which contains the next largest body of troops is very cool and healthy, being about 2,000 feet above the sea level and well exposed to the air and winds from every quarter.

"The general health of the troops throughout the year has been satisfactory."

Cape of Good Hope and St. Helena.

Section II.

On the Extent of Invaliding.

Twenty-eight invalids were sent home from the Command (26 from the Cape and 2 from St. Helena) and 25 were discharged the service at Netley during the year, being in the rates of 10·22, and of 9·13 per 1,000 men respectively.

The classes and orders of the diseases which necessitated the invaliding of the year are shown in the following Table :—

Disabilities.	Invalids sent to England from the Cape and St. Helena.	Invalids Discharged the Service at Netley, and elsewhere.
I. *General Diseases.*		
Constitutional Group	9	6
II. *Local Diseases.*		
Diseases of the—		
Nervous System	2	1
Eye	3	3
Ear	2	2
Circulatory System	6	6
Digestive „	1	1
Organs of Locomotion	2	1
V. *Injuries.*		
Accidental..	3	5
Total	28	25
Ratio per 1,000 of Mean Strength.. .. { 1876 ..	10·22	9·13
{ 1866–75 ..	25·85	18·64

The rate of primary invaliding is lower by 2·54 per 1,000 men than that of 1875 ; the rate of final invaliding is 2·56 per 1,000 higher.

Section III.

Mean Daily Sick.

The average number constantly sick in the Command was 110, being in the proportion of 40·16 per 1,000 of the strength, showing an increase of 2·48 per 1,000 on the rate of the preceding year.

The usual information calculated from this number is given in the following Table :—

	1876.	1866–75.
Ratio per 1,000 of Strength constantly Sick..	40·16	49·63
	days.	days.
Average Sick time to each Soldier	14.66	18·12
Average duration of each case of Sickness	19·16	17·59

Cape of Good Hope and St. Helena.

Section IV.

Influence of Age on Mortality.

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Royal Artillery	8	...	43	...	35	...	19	...	18	...	8	...
Royal Engineers...	2	...	13	...	26	...	14	...	5	...	7	...
1st Battalion, 13th Foot ...	97	1	302	...	218	1	123	2	80	1	14	...
,, ,, 24th ,, ...	43	...	429	2	197	2	115	...	72	3	11	...
32nd Foot	22	...	167	2	147	3	124	2	84	...	24	...
Total	172	1	954	4	623	6	395	4	259	4	64	...
Ratio per 1,000 of Mean Strength..... 1876 ...	5·81		4·19		9·63		10·13		15·44		...	
Ratio per 1,000 of Mean Strength..... 1866–75	1·52		5·65		10·07		14·38		23·61		20·80	

IX.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF MAURITIUS.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Mauritius.

THE average annual strength of the force was 440 non-commissioned officers and men, amongst whom there were 712 admissions into hospital and 3 deaths; the average number of constantly sick was 16·62. The ratios given by these numbers are—for admissions, 1618·2; for deaths, 6·81; and for constantly sick, 37·77 per 1,000 of the mean strength, respectively. The rate of admissions exceeds that of the preceding year by 295·3 per 1,000 men; the death-rate, however, is 7·65; that of constantly sick is 3·15 per 1,000 men lower than in 1875.

The corps of which the force consisted, and some of the more important of their health statistics, are shown in the following Table :—

Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Ratio per 1,000 of the strength.				Average Sick-time to each Soldier.	Average duration of each case of Sickness.
						Admitted.	Died.	Invalided.	Average Daily Sick.		
										Days.	Days.
Royal Artillery, 4th Battery 2nd Brigade, and 3rd Battery 22nd Brigade	91	149	1	1	3·28	1637·3	10·88	10·88	36·04	13·16	8·04
2nd Bat. 3rd Foot, Wing *	161	283	...	...	6·24	1788·8	...	...	38·76	14·15	7·91
33rd Foot † ,,	167	257	1	6	6·72	1538·9	5·99	35·93	40·28	14·69	9·54
Departmental Corps, &c....	21	18	1	2	·38	...	...	...	...	...	...

* Arrived in the Command in July. † Left the Command in July.

The admissions and deaths in the various classes and orders of diseases are shown in the following Table :—

Mauritius.

Order.	Diseases.	1876. Strength, 440. Admitted.	Died. At Mauritius.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	1869–75. Ratio per 1,000. Admitted.	1869–75. Ratio per 1,000. Died.
	I. *General Diseases.*						
1	Febrile Group ..	302	1	686·4	2·27	780·8	2·88
2	Constitutional „ ..	46	..	104·5	..	107·1	2·88
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System ..	10	..	22·7	..	9·5	1·15
2	Eye	14	..	31·8	..	11·2	..
3	Ear	1	..	2·3	..	8·7	..
5	Circulatory System ..	8	..	18·2	..	12·1	2·02
6	Absorbent „ ..	15	..	34·1	..	11·2	..
7	Ductless Glands ..	2	..	4·5	..	..	..
8	Respiratory System ..	37	1	84·1	2·27	32·8	·58
9	Digestive „ ..	104	1	236·4	2·27	197·0	4·03
10	Urinary „ ..	28	..	63·6	..	52·7	..
11	Generative „ ..	1	..	2·3	..	12·1	..
12	Organs of Locomotion	4	..	9·1	..	5·0	..
13	Cellular Tissue ..	20	..	45·4	..	22·8	..
14	Cutaneous System ..	39	..	88·6	..	61·9	..
	III. *Conditions, &c.*						
	Debility	4	..	9·1	..	6·9	..
	IV. *Poisons* ..	7	..	15·9	..	22·8	1·15
	V. *Injuries.*						
2	Accidental	70	..	159·2	..	102·8	·58
4	Self-inflicted	..	..	..	..	..	·28
	VI. *Surgical Operations*	..	..	..	..	·3	..
	Total	712	3	1618·2	6·81	1457·7	15·55
	Average of 10 years, 1866–75	..	..	1573·9	21·36	..	..

General Diseases.—The rate of admissions for diseases of this class is higher than in 1875, and it is higher for each group of the class; the rate of the *febrile* group being 64·7, and that of the *constitutional* 32·2 per 1,000 men in excess of the corresponding rate for the preceding year.

The admissions and deaths from the principal diseases in this class are shown in the following Table:—

General Diseases.	Strength, 440.		Annual Ratio per 1,000 of Strength.			
			1876.		1869–75.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	·9	..
Continued „	21	..	47·7	..	65·9	..
Paroxysmal „	246	1	559·1	2·27	705·9	2·59
Influenza	34	..	77·3	..	6·6	..
Erysipelas	1	..	2·3	..	·9	..
Other diseases	..	..	..	..	·6	·29
Total of Febrile Group ..	302	1	686·4	2·27	780·8	2·88
Constitutional—						
Rheumatism	11	..	25·0	..	36·8	..
Syphilis	28	..	63·6	..	48·9	..
Scrofula, Phthisis, &c.	3	..	6·8	..	8·7	2·59
Scurvy and Purpura	..	..	..	..	·3	..
Anæmia	3	..	6·8	..	12·1	·29
Other diseases	1	..	2·3	..	·3	..
Total of Constitutional Group	46	..	104·5	..	107·1	2·88

Continued Fevers.—The rate of admissions is more than twice that of the preceding year.

Paroxysmal Fevers.—The rate of admissions is 26·4 per 1,000 men lower than that of the preceding year, being almost exactly the reduction in the proportion of continued fevers in the present year; this result, taken in connection with the remarks of the Principal Medical Officer, that certain of the cases of malarial fever were not distinctly marked, and might have been returned under other heads, makes it probable that the proportions of the two kinds of fever did not materially differ for the two years. The admissions for paroxysmal fevers (ague in all but two instances) were proportionately three-fold more numerous amongst the men who had served long at the station than amongst those of the corps which arrived about the middle of the year. One death was due to remittent fever.

Syphilis.—The rate of admissions is double that of the preceding year.

Local Diseases.—With the exception of diseases of the *ear*, and of the *circulatory, generative, and locomotive systems*, the rate of admission for every order in this class exceeds that for the same order in 1875, and in most instances considerably.

Poisons.—The rate of admissions is less than a third of that of the preceding year.

Injuries.—*Accidental.*—The rate of admissions exceeds that of 1875 by 36·3 per 1,000 men.

Officers.

In an annual average strength of 22 officers, there were only 6 attacks of illness, none of which were fatal.

Women.

In an average annual strength of 36 wives of non-commissioned officers and men, there were 9 attacks of illness, and 1 death which was due to dysentery.

Children.

In an annual average strength of 77 children of non-commissioned officers and men, there were 19 attacks of illness, two-thirds of which were of ague; there were three deaths, due to ague, remittent fever, and anæmia.

Mauritius.

SANITARY REPORT.

Surgeon-Major Moorhead, the senior medical officer, reports:—"It will be seen, on referring to the return showing the specific diseases by which the admissions into hospital and deaths have been occasioned among the troops serving in the Mauritius during the past year, that by far the greatest amount of sickness was due to malarious fever, which is now unfortunately endemic in the island, especially at all districts bordering on the coast line.

"*Prevalence of Fever.*—The greater or less prevalence of the fever here seems to be mainly influenced by climatic causes; heavy rains inducing a great increase, a drought almost conferring an immunity, not only from fever but all other diseases of malarial origin.

"*Sanitary Condition of Barracks, &c.*—The general sanitary condition of all the occupied barracks in the Command has been reported good by the respective medical officers in charge; and no great sanitary defects have been noted as existing in the vicinity of any of the barracks.

"*Water Supply.*—The medical officer in charge of the station hospital at Mahebourg attributes the numerous admissions from diarrhœa, which occurred there during the month of August, to the probable pollution of the drinking water. The canal which conveys the water supply to the troops at Mahebourg is no doubt liable to many sources of pollution during the rainy season, and its defects have been frequently pointed out by Deputy Surgeon-General Small in his sanitary reports. A scheme for supplying the troops and people at Mahebourg with water from the Creole river has long been in contemplation by the General Board of Health; the necessary pipes have long been procured, but want of funds, I believe, stands in the way of its completion. However, a new filtering chamber, in connection with the tank from which the barrack and hospital supply of water is derived, has been recently built, and will no doubt prove highly beneficial.

"*Sanitary Improvements.*—The following are the leading sanitary improvements effected during the year:—

"*Mahebourg.*—Additional ventilation has been provided in the upper floor of the wooden barrack by means of four end ventilating windows. Additional latrine accommodation for the men has been secured; a house furnished with six tubs has been erected. The drainage of the barracks and hospital has been improved, the old drains have been taken up and relaid in stonework, and a new drain opened. A filtering chamber has been built, and two sheds for the men on sentry have been erected.

"*Fort George.*—A new latrine for officers has been built, the whole range of barracks painted externally, and the ditches thoroughly cleaned out.

"*Sanitary Works.*—The sanitary works under the superintendence of the General Board of Health, in connection with the 'Mer Rouge' in the vicinity of Fort George, are still progressing, and much has been done during the year towards planting the land reclaimed from the foreshores and creeks.

"*Station Hospital, Port Louis.*—The drainage has been improved.

"*Citadel.*—A shed erected for the men on sentry.

"*Additional Huts at Curepipe.*—The erection of a few additional huts at Curepipe is much to be desired. At present there are five huts at the Sanitarium, each capable of accommodating eight men. Of these, four are available, and one not, in consequence of its being used as a commissariat store. This amount of accommodation I consider is not sufficient for the number of men, for whom a change of climate during the hot and sickly season is necessary.

"The Sanitarium has now been occupied to a greater or less extent since January 1873, and with most beneficial results. With a few additional huts and judicious interchanges, the majority of the troops in the Command could have the benefit of a change of climate, their health and efficiency would be restored, and the amount of invaliding probably lessened. This limited hut accommodation at Curepipe is, I consider, the great sanitary want at present, and one deserving attention and consideration."

Section II.

On the Extent of Invaliding.

Nine invalids were sent home from the Command, and eight were finally discharged the service at Netley during the year. The proportion of men sent home is less than the half of that for the preceding year, but the circumstance of nearly the whole of the troops in the Command having been relieved during the year, may have influenced the result.

Class.	Order.	Diseases.	Invalids sent Home.	Discharged the Service at Netley.
I.	2	Constitutional group ..	2	2
II.	1	Nervous system	1	1
	5	Circulatory „	3	3
	8	Respiratory „	..	1
	10	Urinary „	..	1
	14	Cutaneous „	1	..
III.	..	Debility	2	..
		Total	9	8
		Ratio per 1,000 of Strength { 1876 ..	20·45	18·18
		Ratio per 1,000 of Strength { 1866–75	43·48	13·86

Section III.

Mean Daily Sick.

The average number of men constantly sick was 16·62.

The usual information, calculated from the number of constantly sick, is given in the following Table:—

	1876.	1869–75.
Ratio per 1,000 of Strength constantly Sick	37·77	56·58
Mean Sick-Time to each Soldier	13·79	20·65
Average duration of cases of Sickness	8·52	13·12

All the proportions are lower than the corresponding ones for the preceding year, showing that although the number of men admitted into hospital was considerably greater than in 1875, the illnesses were of a less severe nature.

Section IV.

Influence of Age on the Mortality.

In consequence of the change in the composition of the force, no non-commissioned officers or men served for a whole year in the Command.

X.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF CEYLON.

Section I.

Sickness and Mortality.

Ceylon.

The average annual strength of the non-commissioned officers and men of the White Troops stationed in the Command was 1,076, among them there were 795 admissions into hospital, and 8 deaths; the number constantly sick was 54·98; the rate of admissions is therefore 738·8, that of deaths is 7·43, and that of constantly sick is 51·10 per 1,000 of the average strength respectively. The rate of admissions is 8·5 per 1,000 higher, but that of deaths is 6·13 lower, than the corresponding rate of the preceding year, that of constantly sick is 4·99 per 1,000 higher.

The corps which composed the force stationed in the Command, and certain of the most important of their health statistics, are shown in the following Table:—

Corps.	Completed Years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick-time to each Soldier.	Average Duration of each Case of Sickness.	Stations.
							Admitted.	Died.	Invalided.	Daily Sick.			
Royal Artillery. 6th and 7th Batteries, 2nd Brigade.	12	190	123	4	1	7·21	647·0	21·05	5·26	37·95	Days. 13·85	Days. 21·41	Colombo. Galle. Trincomalee.
57th Regiment	2	863	660	4	27	46·72	764·8	4·63	31·29	54·14	19·76	25·84	Colombo. Galle. Kandy.
Departmental Corps, &c.	...	23	12	.	.	·96	521·7	...	...	41·74	15·23	29·20	

The admissions and deaths in the various orders of diseases, are shown in the following Table :— *Ceylon.*

Orders.	White Troops ..	Strength, 1,076.		Annual Ratio per 1,000.			
			Died.	1876.		1869–75.	
	Diseases.	Admitted.	At Ceylon.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*						
1	Febrile Group ..	104	1	96·7	·93	175·9	2·72
2	Constitutional „ ..	63	1	58·5	·93	129·6	2·89
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System ..	11	4	10·2	3·71	13·2	1·02
2	Eye	58	..	53·9	..	38·1	..
3	Ear	12	..	11·2	..	11·4	..
4	Nose	..	..	..	..	·2	..
5	Circulatory System ..	19	..	17·7	..	18·7	2·21
6	Absorbent „ ..	32	..	29·7	..	39·1	..
8	Respiratory „ ..	13	..	12·1	..	39·3	·51
9	Digestive „ ..	157	2	145·9	1·86	307·4	7·30
10	Urinary „ ..	66	..	61·3	..	94·5	·51
11	Generative „ ..	29	..	26·9	..	28·7	..
12	Organs of Locomotion	8	..	7·4	..	5·0	..
13	Cellular Tissue ..	12	..	11·2	..	32·4	..
14	Cutaneous System ..	84	..	78·1	..	118·4	·17
	III. *Conditions, &c.*						
	Debility	24	..	22·3	..	14·0	..
	IV. *Poisons* ..	9	..	8·4	..	18·7	·51
	V. *Injuries.*						
2	Accidental	93	..	86·4	..	138·1	1·53
4	Self-inflicted	..	..	..	..	·2	·34
	VI. *Surgical Operations*	..	..	..	..	·2	..
	No appreciable disease	1	..	·9	..	1·9	..
	Total	795	8	738·8	7·43	1225·0	19·71
	Average of 10 years, 1866–75	..	..	1094·8	17·63	..	..

General Diseases.—The rate of admissions for diseases of this class exceeds that of 1875 by 21·6 per 1,000 men. An increased prevalence is found both in diseases of the *febrile* and in that of the *constitutional group;* the rate of mortality for the class is fractionally lower.

The admissions and deaths from the principal diseases in this class are shown in the following Table :—

Ceylon.

General Diseases.	1876. Mean Strength, 1076. Admitted.	Deaths In Command	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	1869–75. Annual Ratio per 1,000 of Strength. Admitted.	Died.
Febrile—						
Eruptive Fevers	1	..	·9	..	·4	..
Continued „	95	1	88·3	·93	66·8	1·02
Paroxysmal „	7	..	6·5	..	99·4	1·36
Cholera	..	..	..	..	·5	·17
Influenza	..	..	..	..	6·6	..
Erysipelas	1	..	·9	..	1·5	..
Other diseases	..	..	..	..	·7	·17
Total of Febrile Group	104	1	96·6	·93	175·9	2·72
Constitutional—						
Rheumatism	6	..	5·6	..	28·0	..
Syphilis	49	..	45·5	..	78·3	·17
Scrofula, Phthisis, &c.	8	1	7·4	·93	11·5	2·38
Scurvy and Purpura	..	..	..	..	·9	..
Anæmia	..	..	..	..	9·0	..
Other diseases	..	..	..	..	1·9	·34
Total of Constitutional Group	63	1	58·5	·93	129·6	2·89

Eruptive Fevers.—The admission was for chicken-pox.

Continued Fevers.—The prevalence of fevers of this kind is in the rate of 9·9 per 1,000 men higher, than that of the preceding year.

Enteric Fever.—An attack of this disease proved fatal to a soldier of the 57th Regiment, at Galle.

Simple Continued Fever, caused 84 admissions, of which 74 were those of men of the 57th, nearly three-fourths of them being in the head-quarters of the regiment at Colombo.

Febricula, caused 10 admissions.

Paroxysmal Fevers.—The rate of admissions is 4·1 per 1,000 lower than that of the preceding year; the rate of prevalence of fevers of malarial origin is less than one-sixteenth of the average of ten years, a circumstance which raises the presumption that the influence of diagnosis may be traced in the result.

Rheumatism.—The rate of admissions is only one-third of that of the preceding year.

Syphilis.—The rate of admissions is double that of 1875.

Scrofula, Phthisis, &c.—The rate of admissions is higher than in 1875, but for that year it was exceptionally low.

Local Diseases.—*Diseases of the Nervous System.*—The prevalence of diseases in this order was less than in the preceding year, but the fatality from them was greaer; as in 1875 there was a disproportionate number of admissions for mental diseases. Sunstroke, caused two admissions and two deaths, both of the latter were those of men of the Royal Artillery, stationed at Trincomalee, they took place in April. Tetanus caused one admission, the illness followed a slight wound of the foot, and it proved fatal. One death is returned as due to acute mania.

Diseases of the Eye.—The rate of admissions is 15·2 per 1,000 men in excess of the high rate of the preceding year. All the admissions in this order were those of men of the 57th Regiment, and excepting four, returned as admissions for impaired vision, all were due to conjunctivitis. The Medical

Officer states that since the arrival of the corps in the Command, this disease has become increasingly prevalent, the admissions in some instances being due to a granular condition of the eyelids following the primary attack. He attributes the origin of the disease to heat and glare, but if this were the usual cause it should seem that the men of other corps stationed in the same places ought also to suffer. Five men were invalided on account of disability following conjunctivitis. *Ceylon.*

Diseases of the Circulatory System.—The rate of admissions is a little higher than in 1875; 14 of the admissions were on account of palpitation, 13 of them being in the 57th Regiment.

Diseases of the Respiratory System, are in a slightly lower rate than that that for 1875.

Diseases of the Digestive System.—The rate of prevalence is 57·4 per 1,000 men, or one-fourth less than in the preceding year, and the rate of mortality is less than one-half. Dysentery, and diarrhœa together, caused considerably more than one-third of the whole admissions in the order, 17 admissions were due to hepatitis, and 20 to jaundice.

Diseases of the Urinary System.—The rate of admissions is 6·5 per 1,000 men lower than in the preceding year.

Conditions, &c.—*Debility.*—The rate of admissions is 7·8 per 1,000 men higher than in 1875.

Poisons.—7 admissions were for delirium tremens, and 2 for alcohol poisoning.

Injuries.—*Accidental.*—Exactly the same number of admissions for accidental injuries took place as in the preceding year, but the greater strength of the present year gives a lower ratio than in 1875; no injury was fatal.

Officers.

In an average annual strength of 36 officers, only 6 attacks of illness are returned; there were no deaths; 1 officer was invalided home.

Women.

In an average annual strength of 70 wives of non-commissioned officers and men, 24 attacks of illness are returned. No case was fatal.

Children.

In an average annual strength of 152 children of non-commissioned officers and men, there were 44 attacks of illness and 6 deaths, the proportion of the latter being 39·47 per 1,000. The deaths were due, to sunstroke 1, to convulsions 1, to teething 3, to debility 1.

Native Troops.

The native troops consisted of a company of Gun Lascars, distributed between the stations of Colombo, Trincomalee, and Galle. Their average annual strength was 88, the admissions into hospital 11, and the average constantly sick ·33. No man of the corps died, or was invalided during the year.

SANITARY REPORT.

Surgeon-Major Poppelwell reports that "the sanitary condition of the barracks at all the stations in the Command has been reported as favourable during the year.

"In *Colombo* a new guard-room has been finished and occupied, as also a new orderly-room. A new block of barracks has been in process of building during the year, and will soon be completed. It is constructed to hold 232 men, and is on the same plan as the other blocks already erected. At all the other stations the barracks have been unaltered.

"At Colombo the water supply has been increased by additional wells connected by underground tunnel. So far there has been a larger supply, but it has yet to bear the test of the dry season of March and April.

Ceylon.

"At *Kandy and Galle* the scarcity of water continues. The waterworks at Kandy have been commenced by the local authorities, and a liberal supply of good water may be anticipated.

"At all stations except Trincomalee, the dry-earth system is in use in the latrines; arrangements are, however, being made to bring it into use.

"The lighting of the barrack-rooms continues to be effected by oil-lamps, which give a very feeble light; kerosine lamps are shortly to be introduced. In Colombo, where gas is in use, it would be an immense boon to have it introduced into the barrack-rooms. In the recreation-room of the infantry regiment at that station gas is burned, the extra expense being defrayed from the regimental funds.

"The rations have been fair considering the climate. Beef is the only meat issued—tough, stringy, and tasteless. Potatoes are issued twice a-week, but are not always obtainable; native vegetables are in abundance.

"In all the kitchens, except one at Galle, Benham's ranges are in use.

"Drunkenness prevails largely; in the native shops liquor is easily procurable, and the climate and want of occupation and amusement are great incentives to drinking.

"There has been no excessive duty, and the parades are carried on in early mornings and in evenings, so as to avoid exposure to the sun.

"The hospitals at all stations are reported good and suitable to the climate; they have never been overcrowded, and the diets have been as good as could be got.

"The invalids have been sent home in small numbers (four or five at a time) by the mail steamer from Galle during the year, with great benefit to the sick, and relief to the hospitals.

"The station of Newara Eliya has been unoccupied during the whole year, and as it has been decided to give it up altogether, the buildings have been handed over to the civil authorities. The facilities for sending invalids to England have done away with the necessity of keeping up a sanitarium, which benefited only a small class of the diseases of the climate, and probably never thoroughly recruited any.

"Cholera has occurred amongst the natives during the whole year in different parts of the island, but never as an epidemic. The disease is imported from the Indian coast by the coolies, who arrive in large numbers for work on the coffee estates in the interior. There has been no case among the troops, European or Native."

Section II.

On the Extent of Invaliding.

Twenty-eight non-commissioned officers and men, were invalided during the year being in the rate of 26·02 per 1,000; this is 16·57 per 1,000 lower than the rate for the preceding year. Thirteen men from the Command were discharged the service at Netley, showing a fractional reduction on the rate of the preceding year.

The classes and orders of the diseases, to which the invaliding of the year was due, are shown in the following Table:—

Ceylon.

Strength 1,076. Diseases.	Invalids sent to England.	Invalids Discharged at Netley.
I. *General Diseases.*		
Constitutional Group	4	3
II. *Local Diseases.*		
Diseases of the—		
Nervous System	1	..
Eye	6	..
Ear	1	2
Circulatory System	3	5
Respiratory „	1	..
Digestive „	7	..
III. *Debility*	4	2
V. *Injuries.*		
Accidental	1	1
Total	28	13
Ratio per 1,000 of Mean Strength .. 1876 ..	26·02	12·08
Ratio per 1,000 of Mean Strength .. 1866-75	40·36	17·84

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men constantly sick (European Troops), was 54·98.

The usual information calculated from this number is given in the following Table :—

	1876.	1866-75.
Ratio per 1,000 of Strength constantly sick	51·10	50·76
	Days.	Days.
Average sick-time to each Soldier	18·65	18·53
Average duration of each case of Sickness ..	25·24	16·92

All the ratios compare unfavourably with those of the preceding year, the number of men always in hospital being 4·99 per 1,000 higher, the average sick time to each man being 1·82 days, and the average duration of each case of sickness 3·67 days longer. These results are accounted for by the fact that the invalids of the year remained longer in the Command than in the preceding year.

Ceylon.

Section IV.

On the Influence of Age on Mortality.

The death-rates of the non-commissioned officers and men, at the several ages, arranged in quinquennial periods, are shown in the following Table :—

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Royal Artillery	4	..	47	1	66	1	33	1	20	..	6	1
57th Foot	26	..	513	3	180	1	63	..	69	..	15	..
Total	30	..	560	4	246	2	96	1	89	..	21	1
Rate per 1,000 of Mean Strength — 1876 ..	..		7·14		8·13		10·42		..		47·62	
Rate per 1,000 of Mean Strength — 7 years	3·20		13·55		25·07		14·95		38·72		37·31	

XI.—ON THE HEALTH OF THE TROOPS SERVING IN CHINA, AND THE STRAITS SETTLEMENTS.

Section I.

Sickness and Mortality of the Troops in China, and the Straits Settlements.

STATISTICAL REPORT.

1. European Troops.

China and Straits Settlements.

The White Troops had an average annual strength of 2,589 non-commissioned officers and men, amongst whom the admissions into hospital were 2,614, being in the rate of 1009·7 per 1,000 men. The deaths in the Command, and those of invalids on the passage home, or after arrival, were 42; being in the rate of 16·22 per 1,000 men. The average number of constantly sick was 107·01, or 41·33 per 1,000 of the strength. The rate of admissions is 54·0, that of deaths is 2·25, and that of constantly sick is 1·05 per 1,000 men higher than the corresponding rate of the preceding year.

The proportions in which the two divisions of the Command contributed to these results, are shown in the following Table:—

Stations.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick time to each Soldier.	Average duration of each case of Sickness.
						Admitted.	Died.	Invalided.	Daily Sick.		
										Days.	Days.
Hong Kong	912	522	4	17	27·7	572·4	4·39	18·64	30·37	11·09	19·37
Straits Settlements ...	1,677	2,092	38	44	79·31	1,247·5	22·66	26·24	47·29	17·26	13·84

For the Hong Kong portion of the Command, the results are very favourable; as compared with those of the preceding year, the admission rate is 120·0, the death rate is 5·05, and the rate of invaliding is 8·64 per 1,000 of the strength, lower. The rate of constantly sick is 1·09 per 1,000 men higher than in 1875, but the value of this indication of the health of the troops is affected by the influence of the longer, or shorter stay of invalids in the Command. The large reduction in prevalence of sickness is stated by the medical officer of the hospital to be mainly due to the replacement of a regiment which had served for some years in tropical countries, by one sent from Malta; a great decrease of ague amongst the troops at Hong Kong resulted from this measure; the medical officer is also of opinion, that the extension of drainage in the vicinity of the quarters, had an appreciable ameliorating effect as regards the prevalence of that disease.

For the Straits Settlements, both the admission and the death rates are higher than those of the preceding year, that of invaliding is lower. The troops in this portion of the Command were employed on field service during a part of the year, and detachments of them were subsequently quartered in the vicinity of the scene of operations.

China and Straits Settlements.

The troops stationed in the Command during the year, were the 3rd and 9th Batteries of the 2nd Brigade Royal Artillery, and the 3rd Battery of the 5th Brigade, a small detachment of Royal Engineers, the 1st Battalion of the 3rd Foot for part of the year, the 1st Battalion of the 10th Foot, the 28th Foot for part of the year, and the 80th Foot. A detachment of the Army Hospital Corps, and a few non-commissioned officers of the Garrison Staff, were also comprised in the force.

The admissions and deaths in the various classes and orders of diseases, are shown in the following Table:—

Order.	Diseases.	Strength .. .. 2,589. Died.			Ratio per 1,000 of Mean Strength. 1876.		1869–75.	
		Admitted.	In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	680	3	..	3	262·6	1·16	451·6	1·95
2	Constitutional „	195	1	1	2	75·3	·77	120·3	2·41
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	61	3	..	3	23·6	1·16	18·1	1·20
2	Eye	32	..	..	..	12·4	..	20·4	..
3	Ear	18	..	..	..	7·0	..	12·7	..
4	Nose	2	..	..	..	·8	..	·4	..
5	Circulatory System ..	60	2	1	3	23·2	1·16	21·8	1·39
6	Absorbent „ ..	35	..	..	..	13·5	..	17·1	..
8	Respiratory „ ..	96	3	1	4	37·1	1·54	50·9	·93
9	Digestive „ ..	710	17	5	22	274·2	8·50	262·0	3·06
10	Urinary „ ..	165	..	..	..	63·7	..	84·8	·18
11	Generative „ ..	25	..	..	..	9·6	..	21·3	..
12	Organs of Locomotion	3	..	..	..	1·2	..	5·1	·10
13	Cellular Tissue ..	44	..	..	..	17·0	..	28·0	..
14	Cutaneous System ..	164	..	..	..	63·3	..	96·1	..
	III. *Conditions, &c.*								
	Debility	94	1	1	2	36·3	·77	22·4	·10
	IV. *Poisons* ..	14	1	..	1	5·4	·39	13·3	1·11
	V. *Injuries.*								
1	Battle	16	..	..	..	6·2	..	1·8	·18
2	Accidental	187	2	..	2	72·2	·77	106·6	·74
3	Homicidal	..	..	..	..	..	..	·1	·18
4	Self-inflicted	..	..	..	..	..	..	·4	·10
5	Judicial	3	..	..	..	1·2	..	..	..
	VI. *Surgical Operations*	..	..	..	..	..	..	·4	..
	No appreciable disease	10	..	..	..	3·9	..	2·0	..
	Total.. ..	2,614	33	9	42	1009·7	16·22	1357·6	13·63
	Average of 10 years, 1866–75 ..	..	..	..	..	1471·6	17·02	..	..

China and Straits Settlements.

General Diseases.—The rate of admissions exceeds that of the preceding year by 32·0 per 1,000 men; an excess occurs in both groups of the class; on the other hand, the rate of mortality is 1·30 per 1,000 men lower than that for the preceding year; the decrease occurs mainly in the rate of the *constitutional group* of diseases.

The admissions and deaths from the principal diseases in this class are shown in the following Table:—

General Diseases.	Admitted.	Died.	Ratio per 1,000. 1876. Admitted.	1876. Died.	1869–75. Admitted.	1869–75. Died.
Febrile Group—						
Eruptive Fevers	1	1	·4	..	1·5	..
Continued „	244	1	94·2	·77	122·2	1·39
Paroxysmal „	420	1	162·2	·39	323·4	·37
Cholera	..	..	..	..	·3	·19
Influenza	8	..	3·1	..	2·3	..
Erysipelas	3	..	1·2	..	1·6	..
Other diseases	4	..	1·5	..	·3	..
Total	680	3	262·6	1·16	451·6	1·95
Constitutional Group—						
Rheumatism	86	..	33·2	..	37·8	·10
Syphilis	85	..	32·9	..	70·5	·18
Scrofula, Phthisis, &c.	15	2	5·8	·77	8·8	1·85
Scurvy and Purpura	1	..	·4	..	·3	..
Anæmia	4	..	1·5	..	1·4	..
Other diseases	4	..	1·5	..	1·5	·28
Total	195	2	75·3	·77	120·3	2·41

Eruptive Fevers.—The admission was that of a man of the 28th Regiment, for chicken-pox.

Continued Fevers.—The rate of admissions exceeds that of the preceding year by 42·0 per 1,000 men, being nearly double. *Enteric Fever.*—Of the four admissions, two were those of men of the 3rd Battery 2nd Brigade Royal Artillery, and two those of men of the 1st Battalion 10th Foot; both corps were stationed in the Straits Settlements, but the particular stations there, where the men were attacked, are not stated. *Simple Continued Fever.*—Of the 120 admissions under this head, all, excepting one, took place in the Straits Settlements; they were relatively most numerous in the 80th Regiment, in which also the death from this disease occurred. *Febricula.*—More than half of the 120 admissions for this disease occurred at Hong Kong. The medical officer of the hospital there states with reference to them that the greater number were due to intemperance, though a few may possibly have been admissions for ague of an imperfectly marked kind.

Paroxysmal Fevers.—The rate of admissions exceeds that of 1875 by 14·0 per 1,000 men; excepting 39 they all occurred amongst the troops in the Straits Settlements, more than two-thirds of them in the 80th Regiment; the death was due to remittent fever.

Other Diseases.—The admissions were for mumps.

Rheumatism.—There is a small reduction in the rate of prevalence on that of the preceding year.

Syphilis.—The rate of prevalence is 21·4 per 1,000 men, lower than that of the preceding year.

China and Straits Settlements.

Scurvy, &c.—One admission only is returned for scurvy; as a considerable part of the force was employed in the field during the year, this comparative immunity from an affection so common in a state of warfare would be striking, were it not for the doubt raised by the remarks of one of the medical officers, which are quoted below.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions is double that of the preceding year, but the rate of mortality is only fractionally higher. More of the admissions in this order were due to neuralgia than to any other disease; there were 14 admissions for sunstroke, half of which occurred in the 80th Regiment; only one death from this affection, however, is returned.

Diseases of the Eye.—The rate of admissions is only the half of that of 1875.

Diseases of the Circulatory System.—The rate of admissions exceeds that of the preceding year by 4·0 per 1,000 men, the rate of mortality is fractionally higher; more than half of the admissions were for palpitation.

Diseases of the Respiratory System.—There is a small increase in the rate of admissions on that of the preceding year; the rate of deaths is nearly threefold higher. The fatal illnesses were bronchitis in one instance, and pneumonia in three.

Diseases of the Digestive System.—The rate of admissions exceeds that of the preceding year by 62·0 per 1,000 men, the death rate is 2·59 per 1,000 men higher; these results are attributable to the exposure of the troops on field service, by which the admissions for diseases of the liver, and of the bowels, were increased. The medical officer of the 1st Battalion 10th Foot states that the admissions from diseases of the bowels in that regiment gave nearly one-fourth part of all admisions, and that "many cases of diarrhœa and of dysentery were attributable to the want of proper dieting, and to exposure."

Diseases of the Urinary System.—The rate of admissions exceeds that of 1875 by 10·0 per 1,000 men.

Conditions, &c.—*Debility.*—The rate of admissions exceeds that of the preceding year by 17·5 per 1,000 men, being nearly double.

Poisons.—There is a decrease of 4·0 per 1,000 men in the rate of admissions compared with that of 1875.

Injuries.—*Battle.*—The nature of the injuries received in battle is not mentioned in any of the reports, except in that from the 1st Battalion 10th Foot, in which instance the injury was from a gunshot. *Accidental.*—The rate of admissions is 15·0 per 1,000 men lower than that of the preceding year; both of the accidental deaths were from drowning.

Officers.

The average annual strength of the officers in the Command was 132; the attacks of illness in this number were 49, and one death (returned as due to colic) took place in the Command. More attacks of illness were from dysentery, than from any other disease.

Women.

In an annual average strength of 115, wives of non-commissioned officers and men, there were 99 attacks of illness, and (in the Command) two deaths; one of the latter was due to hepatitis, and one was consequent on the puerpural state.

Children.

In an annual average strength of 204 children of non-commissioned officers and men, there were 81 attacks of illness, and (in the Command) five deaths; the latter are in the rate of 24·51 per 1,000 of the strength. No illness was due to any kind of eruptive fever; ague, diarrhœa, and debility, caused more attacks of illness than any other diseases. The deaths were due to meningitis (1), to teething (1), to diarrhœa (1), to debility (2).

China and Straits Settlements

2. ASIATIC TROOPS.

The Asiatic Troops stationed in the Command* consisted of a company of Gun Lascars stationed at Hong Kong, having an average annual strength of 64 non-commissioned officers and men. The admissions into hospital were 41, being in the annual rate of 640·6 per 1,000 men. There were no deaths; no soldier was invalided. The rate of admissions is 208 per 1,000 men lower than that of the preceding year; one-fourth of the admissions were on account of ague, and of the remainder nearly two-thirds were for gonorrhœa.

SANITARY REPORT.

Deputy Surgeon-General Gilborne remarks, that as he only arrived in the China Command and took over the duties of Principal Medical Officer in November of the year to which this report refers, he is not able to enter as fully as he could wish into the various subjects connected with the sanitary history of the troops during the year 1876.

"*Hong Kong.*—The following improvements and additions to the sanitary arrangements in the barracks, &c., at this station, have been carried out or commenced during the past year:—

"Ventilation in the roofs at Murray Barracks provided; the drainage at Wellington Barracks improved; the women's latrine and wash-house erected at North Barracks; latrine accommodation at Spring Gardens improved; latrines at Commissariat Buildings reconstructed; ventilation to old Garrison Hospital provided; surface drainage of Victoria Barracks improved; latrines and urinals at Murray Barracks reconstructed; the drains of all the barracks ventilated.

"*Barracks.*—The same barracks were occupied as during the previous year, viz., North Murray, Victoria, Wellington, and McGregor's (hired) Buildings, with the East and West Blocks for married families, and Spring Gardens for the staff. All the buildings have been thoroughly lime-washed and kept in good repair, and the amount of space allowed, both cubic and superficial, has been sufficient; and the vicinity of the barracks generally has been in good sanitary condition.

"*Lighting.*—The old system of lighting, which has been so often complained of, still exists, *i.e.*, one small tin oil lamp to each room, which is useless to read by. The luxury of good light would, doubtless, be highly appreciated by the men: and as gas is now in such universal use in the colony, it is a matter of regret that it has not been introduced into the barracks, where it would add greatly to the cheerfulness of the rooms and the comfort of the men.

"*Rations.*—There has been no alteration in the scale of diet during the year, and the quality of the rations has, on the whole, been good. The monotony of the meat portion of the diet, which is always beef, has been much felt. The occasional issue of a ration of mutton has been proposed more than once, but its high price forms an insuperable objection. The supply of vegetables is good and sufficient.

"*Water.*—The water has been abundant and of good quality.

"*Clothing.*—The clothing has been well suited to the varying nature of the climate.

"*Duties.*—The duties have not been heavy,—the usual guards, parades, &c.,—and have exercised no unfavourable influence on health.

"*Hospital Establishment.*—All the sick of the garrison are treated in the hospital ship 'Meeanee,' moored in the middle of the harbour. The vessel is in good repair, sufficiently ventilated, and has not been overcrowded.

"A boiler and tank, for hot water to be laid on to the baths on each deck, are about to be put up, and a great want will thereby be supplied. A lift, from deck to deck, is much required for the service of the hospital. It was brought forward in the estimates, but has not been sanctioned. The medical

* A regiment of Native Infantry of the Bengal Army formed part of the Expeditionary Force serving in the Malay Peninsula during part of the year; the returns of the sickness of this corps have not been compiled.

China and Straits Settlements.

officer in charge of the hospital points out how necessary it is that means should be provided for transporting the sick to the hospital ship, either sitting or lying down, dressed or in bed, and efficiently protected from sun, or wind and weather. The proper conveyance would be a steam launch, with a deck-house, affording room for at least a dozen men, and a moveable bed or stretcher, on which they could be lifted in and out, when not able to walk. The existing means of transport are objectionable. An open pulling boat, with a canvas awning (which cannot be used in rough weather), is not suitable for the hospital service.

"I would also draw attention to the many risks to which the 'Meeanee' is exposed during the fearful typhoons which sometimes rage in the China Seas,—to say nothing of the ever-present danger of being run into by other vessels in such a crowded harbour as Hong Kong.

"The only remedy, in my opinion, is to have an hospital on shore, which, I think, would, in the long run, be less expensive to maintain than the 'Meeanee,' besides being more convenient, more comfortable, and free from continual danger.

"The year 1876 has been the healthiest ever enjoyed by British troops in the colony of Hong Kong, and the number of admissions and deaths has been lower than during any previous year. The admissions amounted to 522, and the deaths, in hospital, to 2 only. One man also died out of hospital,—found drowned.

"The satisfactory results of the past year are in a great measure due to the great sanitary improvements which have taken place at this station, and from being, as formerly, one of the most unhealthy, Hong Kong can now compare favourably with any other foreign station.

"*Straits Settlements.*—Besides the stations of Singapore, Penang and Malacca, in the Straits Settlements, troops have during the year occupied out-posts in the Malay Peninsula, viz., Blanja, Banda Bâteru, Qualla Kangsa, Kinta, and Sunjhie Ujory. I will, therefore, deal first with the fixed stations, Singapore, Penang, and Malacca.

"*Barracks.*—The barracks—consisting of Fort Canning and Tanglin in Singapore, Fort Cornwallis and the Lines at Penang, and the Infantry Lines at Malacca—are reported well constructed, sufficiently ventilated, and amply spacious for the number of their occupants. The walls of the rooms have been thoroughly lime-washed, and cleanliness has been observed both within and without the buildings.

"*Rations.*—The rations have been of good quality, and no change has taken place in the quantity. Beef was the only meat issued, and is reported to have been of good quality. The vegetables are of various kinds, and seem to have had a beneficial effect upon health.

"*Water.*—The water is obtained from wells, and has been good and sufficient.

"*Clothing.*—White clothing is in general use, and is well adapted to the climate. Serge is worn by men on night duty in the wet season.

"*Duties.*—The duties, comprising guards, parades, drills, &c., have been in no way excessive. At Penang, they were slightly heavier than usual, owing to the withdrawal of troops to occupy Perâk.

"*Drainage.*—The drainage was reported satisfactory during the year.

"*Hospitals.*—At Singapore there are two hospitals, Fort Canning and Tanglin; the former used for the Royal Artillery and a small detachment of infantry stationed at the Fort, and the latter (4 miles away) for the 80th Regiment. They are in good condition, well ventilated, and ample in accommodation for the average number of patients. The hospital at Penang has accommodation for 26 patients. During the early part of the year the space was rather limited, owing to the influx of patients from the Perâk Field Force; but, considering the ordinary strength of the garrison, the accommodation is sufficient for ordinary cases. Additional accommodation is, however, required for the treatment of contagious diseases.

"At Malacca, the hospital was slightly overcrowded on one or two occasions, but the average space was sufficient. A large house, facing the sea, has been purchased for the purpose of turning it into a hospital more suitable for the requirements of the troops, and will probably be soon taken over for occupation.

The Out-Posts in the Malay Peninsula.

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"The huts in the camps generally were of the ordinary Malay pattern, built on piles a few feet above the ground. The flooring consisted of bamboos, crossed in the form of a grating; the side walls were also made of bamboo, flattened and plaited; while the roofing was made of the Nepas palm. Owing to the malarious nature of the country, it is a most important point that the huts should be raised from the ground. The huts erected at Qualla Kangsa, at the commencement of the Perâk campaign, were *not* raised from the ground, and the sickness was very great in consequence. The ventilation of the huts was so perfect that overcrowding was never complained of.

"When the stations on the Perâk river were first occupied, river water was used for every purpose, but it was found so impure, owing to the nuisances committed in it by the Malays, that it was deemed advisable to employ Norton's tubular well-pumps, and, as an additional precaution, to have the water boiled and filtered before being used. After that measure was adopted, dysentery and diarrhœa became much less prevalent. The quality of the water was good, and the supply ample.

"*Rations.*—Owing to the difficulty of communicating with the out-posts, it was some time before supplies of fresh provisions could be regularly forwarded to some of them, notably Kinta, where, in the early part of the occupation, the health of the men evidently suffered from the continued use of preserved meats. Buffaloes were shot occasionally, but the flesh was extremely tough and not very digestible. On the issue of fresh meat and vegetables, the men's health rapidly improved.

"*Clothing.*—White clothing was in use during the day, and serge at night.

"*Hospitals.*—The best situated hut at each encampment was used as an hospital. The accommodation was generally sufficient for the number of sick, and the ventilation was carefully attended to.

"*Sickness.*—The prevailing diseases at the out-posts were diarrhœa, dysentery, and fevers.

"I may add that, on the whole, it may be considered that the health of the troops in the Command during the year 1876 has been remarkably good. The Straits Settlements, in proportion to their strength as compared with Hong Kong, have furnished more than 2 to 1 of the admissions at the latter place. But, considering the trying nature of service in the interior of the Malay Peninsula, and the long residence in the East of the 1st Battalion 10th Regiment, which furnished the greater part of the garrisons at the out-posts, the results may be deemed satisfactory.

China and Straits Settlements.

Section II.

On the Extent of Invaliding.

The causes of the invaliding are shown in the following Table :—

Mean Strength	White Troops 2,589.	
Disabilities.	Sent to England as Invalids.	Discharged as Invalids.
Simple Continued Fever	1	..
Remittent Fever	2	..
Rheumatism	3	1
Secondary Syphilis	1	..
Phthisis	2	..
Diabetes	1	..
Meningitis	1	..
Softening of the Brain	..	1
Epilepsy	1	1
Dementia	3	..
Hemiplegia	1	..
Staphyloma	1	..
Valve Diseases of the Heart	5	3
Hypertrophy „ „	1	1
Palpitation „ „	5	5
Varicose Veins	1	1
Inflammation of Glands	..	1
Bronchitis	2	..
Dysentery	6	1
Hepatitis	5	..
Bright's Disease	..	1
Stricture of Urethra	1	..
Orchitis	..	1
Ulcer	1	..
Boils	1	..
Debility	10	1
Gunshot injuries (Battle)	6	4
Total	61	22
Annual Ratio per 1,000 of Mean Strength 1876	23·56	8·50
Annual Ratio per 1,000 of Mean Strength 1866–75	56·50	28·82

The rate of primary invaliding is 18·89 per 1,000 men, and that of final invaliding is 6·06 per 1,000 lower than the corresponding rate of the preceding year.

Section III.

Mean Daily Sick.

The average number constantly sick of the European Troops, during the year, was 107·01, and of the Asiatic Troops 1·85.

The usual information, calculated from these numbers, is given in the following Table:—

		European Troops.	Asiatic Troops.
Ratio per 1,000 of Strength constantly Sick	1876 ..	41·33	28·91
	1866–75	56·19	74·82
		Days.	Days.
Average Sick time to each Soldier	1876 ..	15·09	10·55
	1866–75	20·51	27·31
Average duration of each Case of Sickness	1876 ...	14·95	16·47
	1866–75	13·94	24·02

Section IV.

Influence of Age on Mortality.

The ages of the White Troops, in quinquennial periods, and the deaths, are shewn in the following Table:—

Corps.	Under 20 Years.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and under 45.	
	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.
Royal Artillery	5	...	70	2	90	...	34	...	38	...	8	...
1st Battalion 10th Foot ...	2	...	242	...	185	7	120	2	68	2	14	...
28th Foot...	71	...	354	...	227	1	77	...	62	2	11	...
80th ,, ...	3	...	433	2	224	5	60	1	66	4	17	1
Total	81	...	1,099	4	726	13	291	3	234	8	50	1
Annual ratio per 1,000 of Strength... 1876	...		3·64		17·90		10·31		34·19		20·00	
Annual ratio per 1,000 of Strength... 1873–75	...		8·01		10·40		20·03		18·86		36·36	

XII.—ON THE HEALTH OF THE TROOPS SERVING IN THE FIJI ISLANDS.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Fiji Islands. The force in this Command consisted of the 6th Company of Royal Engineers, having an annual average strength of 57 non-commissioned officers and men, amongst whom there were 114 admissions into hospital, 3 deaths, and an average constantly sick of 5·05; 5 men were invalided. The ratios given by these numbers are, for admissions 2000·0, for deaths 52·63, for constantly sick 88·60, and for invalids 87·72 per 1,000 of the strength respectively.

General Diseases.—The admissions in this class were 28, being in the proportion of 491·2 per 1,000 of the strength; excepting 3 returned in the *constitutional group*, all the admissions were for *febricula*, and the illnesses appear to have been of the same nature as the ordinary ardent fever of hot countries.

No admission for fever of a paroxysmal kind is returned.

Diseases of the Nervous System.—The 7 admissions for diseases in this order, are in the rate of 121·8 per 1,000 of the strength, 3 of them were on account of sunstroke, two of the attacks of which were of the congestive kind (heat apoplexy), were fatal, one attack (which ended favourably) was due to the direct effect of the rays of the sun.

Diseases of the Digestive System.—47 admissions are returned in this order, being in the proportion of 824·6 per 1,000 of the strength, more than half of the admissions however were for dyspepsia; the significance of the greatly preponderating frequency of diseases of the digestive system in the Command is destroyed by the fact that dyspepsia is not necessarily in relation to climatic peculiarities; respecting these admissions the medical officer writes that "the larger proportion was due to excessive drinking." Diarrhœa, caused 6 admissions, and hepatitis 8. One admission was due to peritonitis, concerning the attack (which was fatal), the medical officer remarks that no cause could be assigned for it but exposure when the man was in a state of intoxication, and in another part of his report he mentions that the drink used by the men was of a very deleterious kind, it may therefore be surmised that the death might with more accuracy have been returned in the class of poisons.

Diseases of the Cutaneous System, caused 13 admissions, 4 of them being for prickly heat.

Conditions, &c., General Debility, caused 5 admissions.

Section II.

Invaliding.

The cause of invaliding was epilepsy, in one instance, hepatitis in one, and debility in three.

Section III.

Mean Daily Sick.

The average number constantly sick was 5·05, being in the rate of 88·60 per 1,000 men. The average sick time to each soldier was 32·34 days; the average duration of each case of sickness was 16·16 days.

XIII.—ON THE HEALTH OF THE TROOPS SERVING IN INDIA.

Section I.

Sickness and Mortality.

India. The average annual strength of the non-commissioned officers and men in India was 58,641; the admissions into hospital were 77,998, and the deaths 944, of which 890 took place in India, and 54 (being those of invalids) on the passage or after arrival in England. The average number of constantly sick was 3,130. The rates from these numbers are, for admissions 1330·1, for deaths 16·10 and for constantly sick 53·38 per 1,000 of the strength.

The sickness for each of the three Commands, is shown in the following Table:—

	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalided.	Constantly sick.	Ratio per 1,000 of Mean Strength.				Average Sick time to each Soldier	Average duration of each case of sickness.
			In India.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly sick.		
												Days	Days
Bengal	37,147	52,482	588	27	615	1,326	2,060	1412·8	16·55	35·69	55·46	20·24	14·33
Madras	11,132	12,224	174	11	185	478	561	1098·1	16·62	42·94	50·40	18·39	16·75
Bombay	10,362	13,292	128	16	144	482	509	1282·8	13·90	46·52	49·12	17·94	13·91
Total ...	58,641	77,998	890	54	944	2,286	3,130	1330·1	16·10	38·98	53·38	19·48	14·65

I.—Bengal.

STATISTICAL REPORT.

Bengal. The average annual strength of the non-commissioned officers and men was 37,147; the admissions into hospital were 52,482; the deaths, including those of invalids who died at sea or after arrival in England were 615; the average number of constantly sick was 2,060. The rate of admissions is 1,412·8, that of deaths is 16·55, and that of constantly sick is 55·46 per 1,000 of the average annual strength. The rate of admissions is 59·4 per 1,000 men higher than in the preceding year, the death-rate is 1·83 lower, and and the rate of constantly sick is ·77 per 1,000 lower.

Bengal.

The admissions and deaths in the different classes and orders of diseases, are shown in the following Table:—

Orders.	Diseases.	Strength, 37,147.				Ratio per 1,000 of Mean Strength.			
			Deaths.			1876.		1869-75.	
		Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	General Diseases.								
1	Febrile Group ..	21,435	206	2	208	577·6	5·60	625·0	8·43
2	Constitutional „ ..	5,340	56	8	64	143·8	1·72	159·5	2·20
	Local Diseases.								
1	Nervous System ..	796	85	2	87	21·4	2·34	20·3	2·36
2	Eye	660	..	..	..	17·8	..	23·4	..
3	Ear	807	..	..	..	8·3	..	7·4	..
4	Nose	29	..	..	..	·8	..	·6	·01
5	Circulatory System ..	809	37	1	38	21·8	1·02	20·0	1·55
6	Absorbent „ ..	532	1	..	1	14·3	·03	15·2	..
7	Ductless Glands ..	3	..	..	..	·1	..	·1	·01
8	Respiratory System ..	2,146	28	4	32	57·8	·86	57·8	1·22
9	Digestive „ ..	8,070	114	7	121	217·2	3·26	246·4	5·42
10	Urinary „ ..	4,097	9	1	10	110·2	·27	103·3	·34
11	Generative „ ..	484	..	..	..	13·3	..	15·1	..
12	Organs of Locomotion	183	1	1	2	4·9	·05	5·1	·05
13	Cellular Tissue ..	433	..	..	..	11·6	..	13·0	·03
14	Cutaneous System ..	2,451	..	..	..	66·0	..	67·1	·01
	III. *Conditions, &c.*								
	Debility	933	..	1	1	25·1	·03	18·4	·09
	IV. *Poisons* ..	135	6	..	6	3·6	·16	4·4	·29
	V. *Injuries.*								
2	Accidental	3,561	22	..	22	95·8	·59	86·5	·86
3	Homicidal	2	1	..	1	} ·3	·03	} ·3	·05
4	Self-inflicted	8	20	..	20		·54		·57
6	Judicial	3	..	..	..		..		·02
	VI. *Surgical Operations*	20	2	..	2	·5	·05	·3	·02
	Not specified ..	..	..	..	..	..	..	·1	·01
	No appreciable disease	25	..	..	..	·6	..	·9	..
	Total	52,482	588	27	615	1412·8	16·55	1490·2	23·54
	Average of 10 years, 1866-75.. ..	..	..	..	..	1466·8	24·44	..	..

General Diseases.—Compared with 1875 there is an increase of 54·9 per 1,000 men in the rate of admissions for the class, the whole of which is in the *febrile group;* for the *constitutional group* there is a reduction of 18· per 1,000. The rate of mortality for the class is lower by 1·21 per 1,000 men, of this the *febrile group* gives ·89, and the *constitutional* ·32 per 1,000 men.

The admissions and deaths from the principal diseases of this class, are shown in the following Table:—

Strength, 37,147		Died.			Ratio per 1,000 of Mean Strength.			
					1876.		1869–75.	
General Diseases.	Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Febrile—								
Eruptive Fevers	699	..	..	..	18·8	..	2·0	·20
Continued „	5,432	70	..	70	146·2	1·89	171·5	1·99
Paroxysmal „	15,057	17	2	19	405·3	·51	440·3	1·57
Cholera	163	114	..	114	4·4	3·07	6·8	4·51
Influenza	28	..	..	..	·8	..	1·2	..
Erysipelas	59	5	..	5	1·6	·13	2·5	·09
Other diseases	17	..	..	..	·5	..	·7	·07
Total of Febrile Group ..	21,455	206	2	208	577·6	5·60	625·0	8·43
Constitutional—								
Rheumatism	1,859	..	..	..	50·1	..	52·9	·02
Syphilis	2,978	4	..	4	80·2	·11	89·2	·11
Scrofula, Phthisis, &c. ..	335	42	6	48	9·0	1·29	10·4	1·86
Scurvy and Purpura ..	9	..	..	..	·2	..	·5	·02
Anæmia	142	3	1	4	3·8	·11	5·7	·04
Other diseases	17	7	1	8	·5	·21	·8	·15
Total of Constitutional Group	5,340	56	8	64	143·8	1·72	159·5	2·20

Eruptive Fevers.—The rate of admissions exceeds that of 1875 by 16·6 per 1,000 men, an eight-fold increase, this result is due to the reappearance of dengue fever in an epidemic form. Of the 699 admissions for eruptive fevers 668 were due to dengue; other forms of fevers of this nature are in a lower proportion than in the preceding year. The admissions for small-pox were 6, for measles 21, for scarlet fever 1, and there were 3 admissions after vaccination.

Continued Fevers.—The rate of admissions is 14·9 per 1,000 men higher than that of the preceding year. The rate of mortality is fractionally lower.

Paroxysmal Fevers.—The rate of admissions is 43·6 per 1,000 men higher than in 1875, associated with this result is a rate of mortality lower by ·20 per 1,000, or more than a third.

Cholera.—This disease was epidemic in certain localities in the Command, but its rate of prevalence was 1·1 per 1,000 men (or one-fifth) less, and its rate of mortality ·61 (or one-sixth) less, than in the preceding year.

Erysipelas.—The rate of prevalence is 1·5 per 1,000 men lower than that of 1875.

Rheumatism.—Compared with the preceding year the rate of admissions is lower by 8·1 per 1,000 men.

Syphilis.—The rate of admissions is 11·2 per 1,000 men lower than in 1875.

Scrofula, Phthisis, &c.—Compared with the preceding year there is in the present, a fractionally higher rate of admissions, associated with a considerably reduced death-rate.

Local Diseases.—*Diseases of the Nervous System.*—The rate of prevalence is fractionally higher than in 1875, whilst the rate of mortality is fractionally lower.

Diseases of the Eye.—The rate of prevalence is lower than in 1875, by 2·5 per 1,000 men.

Bengal.

Diseases of the Circulatory System.—The rate of admissions is fractionally lower, whilst that of deaths is fractionally higher than in 1875.

Diseases of the Respiratory System—The rate of admissions is 2·8, and that of deaths is ·23 per 1,000 men lower than in 1875.

Diseases of the Digestive System.—The rate of admissions is 5·4 per 1,000 men lower, but the rate of deaths is ·11 higher than in 1875.

Diseases of the Urinary System.—The rate of admissions is 5·9 per 1,000 men higher than in the preceding year.

Conditions, &c.—*Debility.*—The rate of admissions is 5·1 per 1,000 men, or one-fifth higher than in the preceding year.

Poisons.—Compared with 1875 the results shown are a fractionally higher admission-rate, associated with a fractionally lower death-rate.

Injuries.—*Accidental.*—The rate of admissions is 4·8 per 1,000 men higher than in 1875; the death-rate is ·31 per 1,000, or nearly one-third lower. Of the 22 accidental deaths, the specific cause was a burn in one instance, multiple injury in 6, drowning in 6, impaction of a foreign body in the air-passage in 1, injury of the brain or of the skull in 5, gunshot wound in 2, and rupture of the spleen in 1. The *homicidal* death, was from a gunshot. The mode of death in the 20 *self-inflicted* deaths was by drowning in 3, by hanging in 2, by a fall from a height in 1, by cut-throat in 1, by gunshot in 12, and by wound (weapon not stated) in 1.

The admissions and deaths which took place at the chief stations in the Command, are shown in the following Table:—

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1866–75.	
					Admitted.	Died.	Admitted.	Died.
Presidency	Calcutta ..	973	771	7	792·	7·19	1247·1	16·05
	Dum-Dum ..	651	896	10	1376·	15·36	1263·0	22·43
	Barrackpore ..	439	1,133	7	2580·	15·94	1797·0	29·17
	Hazaribagh ..	101	108	1	1069·	9·90	1217·2	17·32
	Darjeeling ..	17	13	..	764·	..	1029·5	9·38
Allahabad	Allahabad ..	946	1,514	14	1600·	14·80	1748·4	40·42
	Dinapore ..	882	1,333	16	1511·	18·14	1513·8	23·80
	Benares ..	478	702	5	1468·	10·46	1520·7	22·47
	Chunar ..	68	137	5	2014·	73·52	2230·5	31·32
	Cawnpore ..	739	880	16	1190·	21·65	1617·7	23·85
Oudh ..	Lucknow ..	2,251	3,510	30	1559·	13·22	1259·1	24·32
	Fyzabad ..	970	1,530	28	1577·	28·86	1156·0	20·76
	Sitapur ..	591	765	7	1294·	11·84	1110·9	17·21
Rohilcund	Bareilly ..	776	771	9	993·	11·59	977·5	10·51
	Shahjehanpur ..	465	376	5	808·	10·75	1198·0	21·07
	Moradabad ..	214	189	3	883·	14·01	1047·1	16·78
	Rhanikhet ..	1,231	933	18	757·	14·62	1054·0	16·30
Saugor ..	Jubbulpore ..	566	679	3	1199·	5·30	1602·6	28·99
	Saugor	360	462	4	1283·	11·11	1908·5	27·16
	Nowgong	257	388	3	1509·	11·67	1704·8	25·99
Gwalior	Morar	1,116	1,227	7	1099·	6·27	1665·8	27·27
	Fortress Gwalior	319	386	7	1210·	21·94	1295·5	25·66
	Jhansi	350	983	..	2808·	..	2563·3	17·95

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1866–75.	
					Admitted.	Died.	Admitted.	Died.
Meerut ..	Meerut.. ..	1,454	1,896	24	1303·	16·50	1745·1	33·70
	Fatehgarh ..	227	207	2	911·	8·81	1315·8	18·25
	Agra	1,069	1,076	8	1006·	7·48	1250·3	17·76
	Muttra ..	341	376	10	1102·	29·32	1090·0	16·46
	Delhi	554	854	8	1541·	14·44	1963·5	29·90
	Roorkee ..	359	408	5	1136·	13·92	1402·4	21·60
	Chakrata ..	737	387	7	525·	9·49	*794·4	9·58
Sirhind ..	Umballa ..	1,249	1,768	13	1415·	10·40	1377·8	17·49
	Jullundur ..	835	1,685	9	2017·	10·77	1481·0	21·32
	Subathu ..	733	686	9	935·	12·27	1055 2	16·70
	Dagshai ..	738	746	6	1010·	8·13	981·3	10·44
	Jutogh.. ..	62	63	1	1016·	16·12	*728·0	15·66
	Solun	160	124	1	775·	6·25	¶1370·0	18·35
Lahore ..	Meen Meer ..	886	2,265	17	2556·	19·18	2344·6	40·59
	Fort Lahore ..	152	322	5	2118·	32·89	†2463·3	33·69
	Amritsar ..	232	683	1	2943·	4·31	*1860·0	40·36
	Fort Govindgarh	90	222	1	2466·	11·11	*1630·9	17·38
	Ferozepore ..	1,064	1,958	17	1840·	15·97	1301·2	16·50
	Mooltan ..	743	1,562	8	2102·	10·76	1412·4	16·44
	Fort Kangra ..	52	146	2	2807·	38·46	†1190·0	16·02
	Bhagsu	64	50	1	781·	15·62	‡1100·7	10·94
	Banikhet ..	61	50	..	819·	..	§1029·0	4·83
	Dalhousie ..	29	43	1	1482·	34·48	‖955·8	63·19
Rawal Pindi	Rawal Pindi ..	1,479	2,017	16	1363·	10·81	1467·6	13·75
	Sialkot ..	1,089	1,810	19	1662·	17·44	1376·7	13·69
	Campbellpore..	98	135	3	1377·	30·61	1310·6	14·45
	Fort Attock ..	202	395	5	1955·	24·75	2142·2	20·69
	Dera Ismail Khan	102	187	1	1833·	9·80	1751·8	15·08
	Kooldunnah ..	118	179	1	1516·	8·47	§888·8	6·32
	Khyra Gully ..	51	68	1	1333·	19·60	§1125·8	6·29
	Bara Gully ..	108	200	..	1851·	..	§1033·9	20·14
	Chungla Gully	93	142	1	1526·	10·75	§1066·4	13·29
	Kalabagh ..	107	263	2	2457·	18·69	§1723·4	6·08
	Camp Ghareeal	145	144	11	993·	75·86	**561·4	3·51
Peshawar..	Peshawar ..	1,696	2,980	53	1757·	31·25	2658·4	43·70
	Nowshera ..	362	706	9	1950·	24·86	2282·0	19·07
	Cherat.. ..	411	754	8	1834·	19·46	1439·7	20·91
Camps of Exercise, &c. ..		872	733	3	841·	3·44	..	..
Troops on the March.. ..		1,275	1,334	4	1046·	3·13	..	..
„ treated at Convalescent Depôts and other Hospitals ..		2,288	3,172	90	1386·	39·33	..	..

* 7 years only.
† 8 years only.
‡ 6 years only.
§ 3 years only.
‖ 4 years only.
¶ 2 years only.
** 5 years only.

Bengal.

Although cholera was epidemic amongst the troops at Peshawar, there is a reduction of 1467· per 1,000 men in the rate of admissions on that of the preceding year, a result due to the diminished prevalence of paroxysmal fevers. Excluding stations, the average strength at which was not equal to that of a regiment, the highest rate of admissions for sickness in the present year is that for the station of Meen Meer, which exceeds the average rate of the Command by 1143· per 1,000 men, and which is also 83· per 1,000 higher than its own rate for 1875. The great prevalence of ague throughout the year (and in every corps stationed at Meen Meer) caused the very high admission-rate. Of stations having lower rates of admissions than in the preceding year, the most noticeable is that of Calcutta, and it is so, not on account of the importance of the decrease (29· per 1,000 men), as of the fact that there has been a progressive diminution in the admission-rate of this station for several years, in the present year it is conspicuously low, the death-rate of the station is also very favourable. There are 13 stations, the admissions at each of which are less than the average annual strength; all the stations in the Rohilcund Division are in this category.

The admissions and deaths in the different classes and orders of diseases in each of the Military Divisions, are shown in the following Table:—

Order	Divisions	Presidency Circle.		Allahabad Division.		Oudh Division.		Rohilcund District.		Saugor District.		Gwalior District.		Meerut Division.		Sirhind Division.		Lahore Divison.		Rawal Pindi Division.		Peshawar District.		Camp of Exercise and Delhi Camp.		Troops on the March.		Convalescent Depôts.	
	Strength, Average annual ...	2,118		3,039		3,859		2,747		1,176		1,754		4,501		3,926		3,302		3,510		2,384		829		1,893		1,692	
	Class of Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																												
1	Febrile Group	1,124	8	1,275	17	1,736	30	527	10	780	4	1,196	3	1,839	13	2,229	10	4,394	15	2,351	28	2,564	47	199	1	493	...	843	19
2	Constitutional ,, ...	216	5	617	4	748	7	301	3	124	...	177	1	493	7	689	...	415	8	482	6	341	2	138	...	228	...	348	9
	II. *Local Diseases.*																												
	Diseases of the—																												
1	Nervous System	30	3	69	9	113	13	35	2	22	2	50	2	84	16	60	6	85	7	97	10	94	10	5	...	22	1	51	3
2	Eye	30	...	68	...	83	...	45	...	16	...	37	...	96	...	60	...	48	...	96	...	36	...	10	...	13	...	18	...
3	Ear	15	...	25	...	71	...	20	...	5	...	16	...	46	...	23	...	41	...	22	...	9	...	...	...	...	...	12	...
4	Nose	1	...	1	...	1	...	1	...	2	...	2	...	6	..	1	...	8	...	2	...	2	...	...	...	2	...	...	...
5	Circulatory System ...	38	...	55	5	137	4	37	2	6	...	26	1	78	6	118	9	48	3	107	3	84	3	5	...	10	...	61	1
6	Absorbent ,, ...	31	...	131	1	58	...	28	...	10	...	24	...	37	...	28	...	48	...	36	...	17	...	19	...	25	...	31	...
7	Ductless Glands	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Respiratory System	117	1	216	...	185	1	111	4	49	...	95	...	223	3	176	4	237	4	324	3	133	1	84	1	82	2	134	3
9	Digestive ,, ...	542	6	861	16	965	10	563	13	166	2	370	3	959	19	750	10	732	11	844	7	614	7	116	...	173	...	526	8
10	Urinary ,, ...	320	1	510	...	701	2	155	...	163	1	194	...	401	1	401	2	300	...	313	1	188	...	98	...	205	...	167	1
11	Generative ,, ...	52	...	63	...	62	...	23	...	9	...	12	...	51	...	46	...	30	...	42	...	42	...	13	...	23	...	19	...
12	Organs of Locomotion ...	6	...	21	...	24	...	8	...	1	...	22	...	22	1	15	...	22	...	16	...	4	...	7	...	9	...	9	...
13	Cellular Tissue	25	...	36	...	61	...	26	...	8	...	22	...	59	...	47	...	32	...	50	...	22	...	11	...	11	...	22	...
14	Cutaneous System	160	...	268	...	363	...	120	...	72	...	128	...	274	...	244	...	301	...	244	...	99	..	29	...	41	...	85	...
	III. *Conditions, &c.*																												
	Debility	66	...	76	...	141	...	48	...	9	...	39	...	70	...	41	...	191	...	119	...	77	...	3	...	16	...	46	...
	IV. *Poisons*	6	2	15	2	18	...	14	...	...	...	...	...	15	...	10	...	20	1	22	...	11	1	...	...	2	...	4	...
	V. *Injuries.*																												
2	Accidental	182	3	303	2	431	1	215	1	85	1	146	2	438	1	422	...	346	4	512	4	178	...	61	1	125	1	107	...
3	Homicidal	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
4	Self-Inflicted	...	...	2	3	1	4	...	1	...	...	...	2	3	5	2	1	...	2	...	2	1	...	...	...	...	...	1	...
6	Judicial	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
	VI. *Surgical Operations* ...	2	...	3	...	3	2	1	...	1	...	...	...	...	...	2	...	4	...	2	...	2	...	...	...	...	...	3	...
	No appreciable disease ...	3	...	4	...	4	...	...	...	...	...	...	...	1	...	1	...	2	...	2	...	6	...	...	...	1	...	4	...
	Total	2,968	29	4,619	59	5,906	74	2,278	36	1,537	10	2,557	14	5,195	72	5,367	42	7,304	55	5,685	64	4,525	72	798	3	1,481	4	2,491	44

Bengal

Ratio per 1,000 of Mean Strength

Order.	Divisions / Diseases.	Presidency Division.		Allahabad Division.		Oudh Division.		Rohilcund District.		Saugor District.		Gwalior District.		Meerut Division.		Sirhind Division.		Lahore Division.		Rawal Pindi Division.		Peshawar District.		Camp of Exercise and Delhi Camp.		Troops on March.		Convalescent Depôts.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																												
1	Febrile Group	530·69	3·78	419·54	5·59	449·86	7·77	191·85	3·64	663·26	3·40	681·87	1·71	408·48	2·89	567·77	2·55	1330·71	4·54	669·80	7·98	1075·50	19·71	240·05	1·20	260·43	...	498·23	11·23
2	Constitutional ,, ...	101·98	2·36	203·03	1·32	193·83	1·81	109·57	1·09	105·44	...	100·91	·57	109·51	1·56	175·50	...	125·68	2·42	137·32	1·71	143·04	·84	166·47	...	120·44	...	205·67	5·32
	II. *Local Diseases.*																												
	Diseases of the—																												
1	Nervous System	14·17	1·42	22·70	2·96	29·28	3·37	12·74	·73	18·71	1·70	28·51	1·14	18·66	3·55	15·28	1·53	25·74	2·12	27·63	2·85	39·43	4·19	6·03	...	11·62	·53	30·14	1·77
2	Eye	14·17	...	22·37	...	21·51	...	16·38	...	13·61	...	21·10	...	21·32	...	15·28	...	14·54	...	27·35	...	15·10	...	12·06	...	6·87	...	10·64	...
3	Ear	7·08	...	8·23	...	18·40	...	7·28	...	4·25	...	9·12	...	10·22	...	5·86	...	12·42	...	6·27	...	3·77	...	...	...	...	...	7·09	...
4	Nose	·47	...	·33	...	·26	...	·36	...	1·70	...	1·14	...	1·33	...	·25	...	2·42	...	·57	...	·84	...	...	...	1·06	...	...	...
5	Circulatory System	17·94	...	18·10	1·64	35·50	1·04	13·47	·73	5·10	...	14·82	·57	17·33	1·33	30·05	2·29	14·54	·91	30·48	·85	35·23	1·26	6·03	...	5·28	...	36·05	·59
6	Absorbent ,, ...	14·64	...	43·11	·33	15·03	...	10·19	...	16·16	...	13·68	...	8·22	...	7·13	...	14·54	...	10·26	...	7·13	...	22·92	...	13·21	...	18·32	...
7	Ductless Glands	·47	...	...	...	...	...	...	...	...	...	...	...	...	...	·51	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Respiratory System	55·24	·47	71·08	...	47·94	·26	40·41	1·46	41·67	...	54·16	...	49·53	·67	44·83	1·02	71·77	1·21	92·31	·85	55·79	·42	101·33	1·20	43·32	1·05	79·20	1·77
9	Digestive ,, ...	255·90	2·83	283·32	5·26	250·06	2·59	204·95	4·73	141·16	1·70	210·95	1·71	213·02	4·22	191·03	2·55	221·68	3·33	240·46	1·99	257·55	2·94	139·93	...	91·39	...	310·88	4·73
10	Urinary ,, ...	151·09	·47	167·82	...	181·65	·52	56·43	...	138·61	·85	110·60	...	89·07	·22	102·14	·51	90·85	...	89·17	·28	78·86	...	118·21	...	108·29	...	98·70	·59
11	Generative ,, ...	24·55	...	20·73	...	16·07	...	8·37	...	7·65	...	6·84	...	11·33	...	11·72	...	9·09	...	11·97	...	17·62	...	15·68	...	12·15	...	11·23	...
12	Organs of Locomotion ...	2·83	...	6·91	...	6·22	...	2·91	...	·85	...	12·54	...	4·89	·22	3·82	...	6·66	...	4·56	..	1·68	...	8·44	...	4·75	...	5·32	...
13	Cellular Tissue	11·80	...	11·84	...	15·81	...	9·47	...	6·80	...	12·54	...	13·10	...	11·97	...	9·69	...	14·24	...	9·23	...	13·27	...	5·81	...	13·00	...
14	Cutaneous System	75·54	...	88·19	...	94·06	...	43·68	...	61·22	...	72·98	...	60·86	...	62·15	...	91·16	...	69·51	...	41·53	...	34·98	...	21·66	...	50·24	...
	III. *Conditions, &c.*																												
	Debility	31·16	...	25·01	...	36·54	...	17·47	...	7·65	...	22·24	...	15·55	...	10·44	...	57·84	...	33·90	...	32·30	...	3·62	...	8·45	...	27·19	...
	IV. *Poisons*	2·83	·94	4·93	·66	4·66	...	5·10	...	...	...	...	...	3·33	...	2·55	...	6·06	·30	6·27	...	4·61	·42	...	...	1·06	...	2·36	...
	V. *Injuries.*																												
2	Accidental	85·93	1·42	99·70	·66	111·69	·26	78·27	·36	72·28	·85	83·24	1·14	97·29	·22	107·49	...	104·78	1·21	145·87	1·14	74·66	...	73·58	1·20	66·03	·53	63·24	...
3	Homicidal	·47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·42	·42	...	...	...	...	...	...
4	Self-inflicted	...	...	·66	·99	·26	1·04	...	·36	...	...	...	1·14	·67	1·11	·51	·25	...	·61	...	·57	·42	...	...	...	...	·59	...
6	Judicial	...	...	...	...	...	...	...	...	...	...	·57	...	...	...	...	...	...	...	·57	...	...	...	...	...	...	...	...	...
	VI. *Surgical Operations* ...	·95	...	·99	...	·78	·52	·36	...	·85	...	...	...	...	...	·51	..	1·21	...	·57	...	·84	...	...	...	...	...	1·77	...
	No appreciable disease ...	1·42	...	1·32	...	1·04	...	...	...	...	...	...	...	·32	...	·25	...	·61	...	·57	...	2·52	...	...	...	·53	...	2·36	...
	Total	1401·32	13·69	1519·91	19·41	1530·45	19·18	829·26	13·10	1306·97	8·50	1457·81	7·98	1153·93	15·99	1367·04	10·70	2211·99	16·65	1619·65	18·22	1898·07	30·20	962·60	3·60	782·35	2·11	1472·22	26·00

General Diseases.

Divisions	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Camp of Exercise and Delhi Camp.		Troops on March.		Convalescent Depots.	
Average Strength ...	2,118		3,039		3,859		2,747		1,176		1,754		4,501		3,926		3,302		3,510		2,384		829		1,893		1,692	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																												
Eruptive Fevers	4	...	46	...	583	...	3	...	2	...	...	...	3	...	55	...	2	...	1	...	2	...	...	...	...	...	1	...
Continued ,, ...	463	3	429	3	692	18	208	5	42	2	135	3	356	7	742	8	697	10	561	4	901	5	33	1	104	...	208	1
Paroxysmal ,, ...	644	...	762	...	446	3	304	1	730	1	1,052	...	1,466	2	1,425	2	3,665	2	1,755	3	1,598	2	165	...	387	...	609	...
Cholera	5	5	24	14	11	9	7	3	5	1	...	...	2	2	...	...	3	2	29	21	57	39	...	...	...	...	20	18
Influenza	...	...	8	...	...	...	1	...	1	...	5	...	1	...	6	...	5	...	1	...	...	...	...	...	...	...	...	...
Erysipelas	2	...	5	...	4	...	3	...	...	...	3	...	8	...	1	...	17	...	4	...	4	...	1	...	1	...	5	...
Other diseases	6	...	1	...	...	...	1	1	...	...	1	...	3	2	...	...	5	1	...	...	2	1	...	...	1	...	...	...
Total	1,124	8	1,275	17	1,736	30	527	10	780	4	1,196	3	1,839	13	2,229	10	4,394	15	2,351	28	2,564	47	199	1	493	...	843	19
Constitutional—																												
Rheumatism	70	...	164	...	170	...	106	...	37	...	82	...	164	...	240	...	178	...	235	...	197	...	28	...	70	...	132	...
Syphilis	115	...	415	1	534	...	162	...	75	...	82	...	277	...	410	...	181	...	191	...	98	...	110	...	143	...	149	3
Scrofula, Phthisis, &c. ...	27	4	25	2	40	6	26	3	10	...	8	1	27	6	34	...	13	3	33	6	32	1	...	...	9	...	41	6
Scurvy and Purpura ...	...	...	4	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	4	...	...	...	...	...	...	...	...	...
Anæmia	2	...	8	1	4	...	7	...	...	...	3	...	24	...	5	...	36	3	16	...	12	...	...	...	3	...	26	...
Other diseases	2	1	1	...	...	1	...	...	2	...	2	...	...	1	...	...	6	2	3	...	2	1	...	...	3	...	...	...
Total	216	5	617	4	748	7	301	3	124	...	177	1	493	7	689	...	415	8	482	6	341	2	138	...	228	...	348	9

Ratio per 1,000 of Mean Strength.

Divisions	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Camp of Exercise and Delhi Camp.		Troops on March.		Convalescent Depôts.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																												
Eruptive Fevers ...	1·90	...	15·14	...	151·08	...	1·09	...	1·70	...	...	...	·67	...	14·01	...	·61	...	·28	...	·84	...	...	...	...	...	·59	...
Continued ,, ...	218·60	1·42	141·16	·99	179·32	4·66	75·72	1·82	35·71	1·70	76·97	1·71	79·07	1·56	189·00	2·04	211·08	3·02	159·83	1·14	377·93	2·10	39·81	1·21	54·94	...	122·93	·59
Paroxysmal ,, ...	304·06	...	250·74	...	115·57	·78	110·66	·36	620·75	·85	599·77	...	325·63	·44	362·97	·51	1109·93	·61	500·00	·85	670·30	·84	199·03	...	204·43	...	359·93	...
Cholera	2·36	2·36	7·90	4·60	2·85	2·33	2·55	1·09	4·25	·85	...	...	·44	·44	...	...	·91	·61	8·26	5·98	23·91	16·36	...	...	...	...	11·82	10·64
Influenza	...	...	2·63	...	...	...	·36	...	·85	...	2·85	...	·22	...	1·53	...	1·51	...	·28	...	...	...	...	...	...	...	...	...
Erysipelas	·94	...	1·64	...	1·04	...	1·09	...	...	...	1·71	...	1·78	...	·26	...	5·15	...	1·14	...	1·68	...	1·21	...	·53	...	2·96	...
Other diseases	2·83	..	·33	...	...	...	·36	·36	...	...	·57	...	·67	·44	...	...	1·51	·30	...	...	·84	·42	...	...	·53	...	...	...
Total	530·69	3·78	419·54	5·59	449·86	7·77	191·83	3·63	663·26	3·40	681·87	1·71	408·48	2·88	567·77	2·55	1330·70	4·54	669·79	7·97	1075·50	19·72	240·05	1·21	260·43	...	498·23	11·23
Constitutional—																												
Rheumatism	33·05	...	53·96	...	44·05	...	38·59	...	31·46	...	46·75	...	36·43	...	61·13	...	53·91	...	66·95	...	82·64	...	33·78	...	36·98	...	78·01	...
Syphilis	54·30	...	136·56	·33	138·38	...	58·97	...	63·78	...	46·75	...	61·53	...	104·43	...	54·81	...	54·42	...	41·11	...	132·69	...	75·54	...	88·06	1·77
Scrofula, Phthisis, &c. ...	17·75	1·89	8·23	·66	10·36	1·55	9·46	1·09	8·50	...	4·56	·57	6·00	1·33	8·66	...	3·94	·91	9·40	1·71	13·42	·42	...	...	4·76	...	24·23	3·55
Scurvy and Purpura ...	...	...	1·82	...	...	...	...	...	...	...	...	...	·22	...	...	...	·80	...	1·14	...	...	...	...	...	...	...	...	...
Anæmia	·94	...	2·63	·33	1·04	...	2·55	...	...	...	1·71	...	5·33	...	1·27	...	10·90	·91	4·56	...	5·03	...	...	...	1·58	...	15·37	...
Other diseases	·94	·47	·33	...	...	·26	...	...	1·70	...	1·14	...	...	·22	...	...	1·82	·61	·85	...	·84	·42	...	...	1·58	...	...	...
Total	106·98	2·36	203·03	1·32	193·83	1·81	109·57	1·09	105·44	...	100·91	·57	109·51	1·55	175·49	...	125·68	2·43	137·32	1·71	143·04	·84	166·47	...	120·44	...	205·67	5·32

The rate of admissions for *General Diseases*, is higher than in the preceding year for every Division excepting Rohilcund, Meerut, and Peshawar, which show reductions of 38·9, of 100·4, and of 896·9 per 1,000 men respectively. The increase in the instance of the Presidency is 268·7, of Allahabad 93·7, of Oudh 168·1, of Saugor 91·1, of Gwalior 161·4, of Sirhind 172·6, of Lahore 324·2, and of Rawal Pindi 351· per 1,000 of the strength. An increased rate is also shown for Troops Marching, and for Camps of Exercise. For diseases of the *febrile group*, every Division shows an increase on the rate of 1875 except Peshawar, in which there is a very large decrease—927·8 per 1,000 men. For diseases of the *constitutional group*, every Division shows a decreased rate of admissions excepting the Presidency, Saugor, and Rawal Pindi. No uniform correspondence is seen between the results as regards the mortality from diseases in this class in the various Divisions, and those relating to its proportional prevalence, increased rates of prevalence, and increased rates of mortality, are associated in some, whilst in others with increased rates of prevalence, there are lower rates of mortality. The disturbing influence of invaliding, upsets conclusions drawn from the fact of mortality, considered alone. *Bengal.*

Eruptive Fevers.—The relative infrequency of fevers of the eruptive kind in adults in India as elsewhere, usually makes a record of the number of instances in which fevers of this group have attacked soldiers, little more than a formal acknowledgment of the importance of uniformity in statistical data, year after year; in the present year however the attacks of eruptive fevers have been considerable in point of number, owing to the reappearance of one form of them, which is ordinarily seen only at long intervals. The epidemic of dengue fever which disease (of late years) appeared first amongst the troops in the Bengal Command in 1872, and then caused 4,026 admissions into hospital, which in 1873 caused 43, 45 in 1874, and 43 in 1875, in the present year again assumed epidemic proportions and gave 668 admissions. The disease appeared in three of the Divisions only, the Allahabad, the Oudh, and the Sirhind, but with very unequal intensity in those Divisions, thus whilst the rate of admissions for eruptive fevers is greater in the Allahabad than in 1875 by a fraction only, it is greater by 151· per 1,000 men in the Oudh, and by 13·5 in the Sirhind. In each of the Divisions named it appeared at one station only, namely at Allahabad, at Lucknow, and at Umballa. At Allahabad, the disease was confined to one corps there, the 1st Battalion 5th Foot, but at Lucknow every corps in the garrison suffered, at Umballa it was nearly confined to the 1st Battalion 12th Foot, only 4 admissions for it took place in all the other corps in the garrison. There were no admissions for dengue in the first quarter of the year, 40 occurred in the second quarter, 190 in the third quarter, and 438 in the last quarter, a sequence which would appear to indicate that the epidemic was increasing both in intensity, and in area of diffusion.

Continued Fevers.—The rate of admissions for fevers of this nature is higher than in the preceding year for the Presidency, Allahabad, Oudh, Gwalior, Meerut, Sirhind, and Lahore Divisions, but is lower for the remaining ones, the increase is greatest in the Lahore Division, 101·9 per 1,000 men, being nearly double the rate of 1875, it is also large in the Oudh, and in the Sirhind Divisions, 77·2 and 59· per 1,000 men respectively. In those Divisions in which there is a lower rate of prevalence of continued fevers, the decrease is trifling in the instances of Saugor, and of Rawal Pindi, but is very large in that of Peshawar, 259·9 per 1,000 men, or considerably more than a third. With higher rates of prevalence, the rates of mortality are lower in the instances of the Allahabad, Rohilcund, and Sirhind Divisions, and higher in those of the Presidency, Oudh, Gwalior, Lahore and Meerut Divisions; a lower rate of prevalence, and a higher rate of mortality are associated in the Saugor, whilst in the Rawal Pindi, and the Peshawar Divisions, lower rates of prevalence, and lower rates of mortality are found together.

Enteric Fever.—For all the Divisions the rate of admissions for this disease is 4·79, and the rate of deaths is 1·75 per 1,000 men; compared with the preceding year these results show an increase of 1·93 per 1,000 men in the admission-rate, and of ·22 per 1,000 in the death-rate; as the rate of mortality for cases treated however is only 365·2 per 1,000 of attacks, or 171·8 lower than in 1875, there is reason to believe that the greater prevalence of enteric fever in the present year may be apparent only, the result of a more exact discrimination between this, and other forms of fever.

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In the following Table, the data in which have been taken from the Quarterly Returns of the Command, the stations at which admissions and deaths from enteric fever took place are shown:—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency ..	Dum-Dum ..	..	..	..	..	1	1	..	..	1	1
	Barrackpore ..	1	..	..	..	4	2	..	..	5	2
Allahabad ..	Allahabad ..	..	..	2	2	..	..	..	..	2	2
	Dinapore ..	..	..	..	..	2	..	..	..	2	..
	Benares ..	..	..	..	..	..	..	2	1	2	1
Oudh ..	Lucknow ..	..	..	11	3	3	2	5	1	19	6
	Fyzabad ..	..	..	15	7	2	2	3	1	20	10
	Sitapore ..	2	..	5	..	1	1	..	1	8	2
Gwalior ..	Morar ..	1	..	1	1	2	1	..	..	4	2
	Fortress Gwalior ..	..	..	2	1	1	..	2	..	5	1
Rohilcund ..	Saugor ..	..	..	1	1	..	..	1	..	2	1
	Nowgong ..	1	1	..	..	3	..	..	..	4	1
	Bareilly ..	2	..	..	..	..	..	..	..	2	..
	Shahjehanpore	..	..	..	..	1	1	2	2	3	3
	Ranikhet ..	..	..	..	..	2	1	..	..	2	1
Meerut ..	Meerut ..	..	..	..	..	2	1	1	1	3	2
	Agra	..	..	..	..	..	..	1	1	1	1
	Muttra ..	..	..	..	..	..	..	1	1	1	1
	Delhi	..	1	3	1	..	..	..	..	3	2
	Roorkee ..	..	..	..	..	1	1	..	..	1	1
Sirhind ..	Umballa ..	1	..	..	..	1	1	2	..	4	1
	Jullundur ..	1	..	4	1	2	2	..	..	7	3
	Subathu ..	2	..	1	..	1	1	3	1	7	2
	Dagshai ..	2	..	..	..	3	2	1	..	6	2
Lahore ..	Meen Meer ..	..	..	1	..	..	..	2	..	3	..
	Fort Lahore ..	..	..	1	..	1	..	1	..	3	..
	Amritsar ..	..	..	1	..	..	..	..	..	1	..
	Ferozepore ..	17	5	..	..	..	..	1	1	18	6
	Mooltan ..	..	..	1	..	..	..	1	1	2	1
Rawal Pindi	Rawal Pindi ..	1	..	..	..	3	..	..	..	4	..
	Sialkot ..	1	1	2	1	1	1	..	..	4	3
	Campbellpore ..	..	..	2	..	..	..	..	..	2	..
	Khyra Gully ..	..	..	1	..	..	..	..	..	1	..
	Bara „ ..	..	..	1	..	..	..	..	..	1	..
	Dera Ismail Khan ..	..	..	..	..	..	..	2	..	2	..
Peshawar ..	Peshawar ..	3	..	..	..	..	..	..	..	3	..
	Cherat ..	..	..	3	..	10	4	..	..	13	4
	Nowshera ..	1	1	..	..	..	..	..	..	1	1
Depôts ..	Nynee Tal ..	..	..	1	..	..	..	..	..	1	..
	Murree ..	..	..	2	1	..	..	..	..	2	1
	On the march, and Camp of Exercise	3	1	..	..	..	..	..	..	3	1
	Total in the Command	39	10	61	19	47	24	31	12	178	65

Enteric fever was present at nearly all the stations at which it was seen in 1875, but usually in a sporadic form only, and attacking men living in different, perhaps widely separated parts of the same station; in other instances, as in that of Cherat, attacking several men of the same corps, and creating a condition for which the term epidemic is inapplicable only because of the small number of attacks in all. There were two instances in which the men of one corps were affected in considerable numbers, to the exclusion of men of other corps quartered at the same station, both of those "house epidemics" affected regiments newly arrived in India; the first in point of time was in the 34th Regiment at Ferozepore, in which it caused 17 admissions in January, the report received from this regiment does not enter into the subject of the outbreak. The epidemic in the 1st Battalion of the 25th Regiment, was a considerable one in point of magnitude—for, as will be shown, its extent is not to be estimated by the 17 admissions returned,—it is important from the relation which the facts observed in connexion with it have to a certain theory of the causation of enteric fever, and the Medical Officer who had charge during its course has given its history in a very clear and complete way; from his report the following particulars are summarised:—The regiment arrived in Bengal in November, 1875, in 1874 it was stationed at Kinsale, in the barracks of which place there have been outbreaks of enteric fever in recent times in two of the regiments occupying them, but it is expressly noticed that the health of the 25th when at Kinsale was good, that it was very healthy on the voyage, and that there is every reason to believe no case of the disease was brought by it to India. The regiment arrived at Fyzabad in the end of November, 1875, and was quartered in the lines vacated by the 51st Regiment, which corps during three successive years had suffered from outbreaks of enteric fever. The first recognised case in the epidemic in the 1st Battalion 25th Regiment was that of a soldier admitted into hospital on the 17th of April, and (excluding an instance in which a non-commissioned officer was attacked in October) the last was admitted on the 15th of June; the epidemic therefore apparently lasted for two months; the following extract from the report however makes it probable that it began at a time anterior to the admission of the first recorded case of the disease:—"When attention "was aroused by the post mortem appearances in the case of Private ——, "the other cases of fever were closely scrutinised, and it was soon evident that "his was not a solitary one of the disease; several presented symptoms of an "unequivocal character. It was next noticed that nearly all these, and in "addition other cases of great severity regarded as being of simple continued "fever, came from the same part of the lines." The disease was very localised, more than two-thirds of the cases were received from the three contiguous bungalows Nos. 17, 18, and 19 (out of 24 occupied by the regiment), most of them from No. 19; these bungalows are at the north end of the lines, on ground of low elevation. Of the cases not received from the bungalows noted, one was that of a married man belonging to the company occupying No. 19, whose duties took him to it frequently; in respect of the other instances no evidence was obtained to show how they acquired their illnesses, whether in or out of what the Medical Officer calls "the infected area." He reverts to the subject of the extent of the prevalence of the fever, and states that "Side "by side with the cases of enteric fever in the two months during which they "occurred, were many of simple continued fever of a severe type, which were "called so because they had not the enteric symptoms sufficiently marked to "warrant their being regarded as instances of enteric fever. In G Company "alone (that occupying No. 19 bungalow), 16 cases of this kind are noted "which occurred synchronously with the enteric fever cases; they were "characterised by persistent pyrexia, sometimes indeed hyperpyrexia, ex-"hibiting the remissions and vacillations of a mild case of enteric fever, and "as in that disease having long retarded convalescence; I append a number "of the temperature charts of these cases. The cases (of simple continued "fever) ceased when those of the specific fever ceased; I have no doubt that "many of them were really cases of enteric fever." An examination of one of the charts referred to in the preceding extract, shows that on the day of admission there was a morning temperature of 100°, in the evening one of 101·9°, that the difference between the morning and evening reading was usually about a

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Bengal. degree and a half, that on the 6th day the evening temperature was 103·5°, on the 20th day 104·8°, and that defervescence did not set in steadily until the 76th day; further, it is remarked that the "bowels are irregular, but no "positive diarrhœa of any continuance." The man remained 106 days in hospital, and on his discharge, being still anæmic, he was sent to the hills.

The Medical Officer notes that the ground water at the beginning of the epidemic was at a low level, and was sinking steadily during its continuance.

With one exception all the persons attacked were young, that is, were under 24 years of age, and had only been a few months in India.

In seeking for the cause of this epidemic the Medical Officer, deciding against the likelihood of importation of the disease from without, considered how the facts in connexion with it bore on the well-known views of the causation of enteric fever in India, propounded by one whose unequalled knowledge of the whole subject of disease in that country, justly inclines opinion towards the acceptance of any view supported by his authority. The influence of excessive heat in developing the phenomena of enteric fever in the human body in the instances under notice is adverted to:—"The time of year (May "and June) when most of the cases occurred seems to favor this hypothesis; "but two circumstances in the outbreak are fatal to it, the first and chief "one being, the limited area in which the disease mostly acted, and the "second, the abrupt termination of the epidemic when the heat was at its "greatest; for manifestations so localised, it is manifest that local causes "must be sought . . ." The conditions which in the opinion of the Medical Officer adequately explained the occurrence of the epidemic, were those of a local poisoning through the medium of the well-water habitually used by the inmates of bungalows 17, 18, and 19, and the possible occasional use of which by individuals in the neighbouring bungalows, might be assumed. Though some of the links in the chain of evidence leading to this conclusion are weak, the force of what is established is almost decisive. Putting aside, as of itself inconclusive, the fact that the epidemic ceased soon after the well in question was shut up (No. 19 bungalow being vacated at the same time), there is evidence from chemical analysis of the suspicious character of the water of this particular well, and there is the presumption of its possible specific contamination by the invalids belonging to the 51st Regiment (in which enteric fever had prevailed) who for some time were quartered in 19 bungalow. The map appended to the report seems to show that the outbreak was due to a local poisoning.

Simple Continued Fever, and Febricula.—The proportions in which the prevalence of these two forms of fever varied from those of the preceding year in the different Divisions have substantially already been noted, when references were made to the prevalence of the group of continued fevers; one significant point in connexion with the mortality of simple continued fever is, that in the present year it is only one-fifth of the rate of 1875.

Paroxysmal Fevers.—The rate of prevalence is higher than for the preceding year in every Division, excepting Meerut, and Peshawar; in the instance of the Presidency the excess is 208·7 per 1,000 men, of Allahabad it is 92·1, of Oudh 29·5, of Rohilcund 44·3, of Saugor 94·6, of Gwalior 193·1, of Sirhind 116·1, of Lahore 267·9, and of Rawal Pindi 351·5; for Meerut the rate is 113·1, and for Peshawar 687·8 per 1,000 men lower than in 1875. The nearly general rise in the rate of prevalence coupled with the magnitude of the excess in most cases, seems to indicate the presence of one of the periodical epidemics of fevers of this nature; for the want of conformity in the instance of Meerut, and still more in that of Peshawar, no explanation is apparent, it is not due in either instance to a transference to the class of continued fevers, and in the instance of Peshawar, the decrease seems to be too great to be accounted for by a shifting of corps.

Cholera.—In the first two months of the year, not a single admission for cholera took place in the Command, and in the following three months most of the few admissions, were those from troops stationed in that part of it in which the occurrence of a few sporadic cases of the disease is usual. At Dinapore, however in the third and fourth weeks of April, the six admissions which took place indicated the presence in the Command of cholera in an epidemic form. In the second, third, and fourth weeks of June, five admissions

took place at Lucknow, and these, with four in August, were consequent on the renewed vitality of the cholera of 1875. The chief outbreaks of epidemic cholera, were in the Punjab portion of the Command, in the Rawal Pindi, and in the Peshawar Divisions. At Murree, and at Camp Ghareeal, in the first-named Division, an outbreak occurred amongst the men of the Convalescent Depôt there, in the last week of July, and continued until the last week in August, during this time it caused 33 attacks, 27 of which were fatal. In the Peshawar Division, the station of Peshawar was attacked in the last week of September, the outbreak lasted for three weeks, and caused 58 attacks, of which 39 were fatal; the disease was general amongst the troops at the station, but it was especially severe in the B Battery F Brigade Royal Horse Artillery. *Bengal.*

The admissions and deaths from cholera, at each station in the Command in each week of the year, are shown in the following Table :—

	Meerut.		Lahore.		Rawal Pinde.												Peshawar.		Total.	
	Delhi.		Fort Lahore.		Rawal Pindi.		Sialkote.		Dera Ismail Khan.		Kelabagh.		Murree.		Camp Ghareeal.		Peshawar.			
	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	—
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
..	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	2
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
..	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
..	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	13	11	...	...	...	...	13	11
...	...	...	...	...	2	...	...	...	...	...	...	...	6	6	...	...	...	...	15	8
...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	3	1	...	...	5	7
...	...	...	1	1	1	...	...	...	...	...	...	..	...	...	9	6	...	...	15	8
...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	2	3	...	...	7	7
...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	6	5
1	...	...	...	...	2	2	3	2	...	...	...	...	...	...	...	...	...	...	8	5
...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	4	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	3	15	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25	21	25	21
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19	13	19	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	1	...	1
...	..	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	1	2
...	2	..	2	...	6	...	6	...	1	...	2	...	19	...	14	..	58	...	163	...
1	...	2	...	2	...	5	...	3	...	1	...	2	...	17		10	...	39	...	114

Rheumatism.—The rate of admissions is lower for every Division except the Presidency, the Oudh, and the Peshawar, for Sirhind the decrease is considerable, 39·5 per 1,000 men.. The increase for Peshawar, amounts to 58·2. *Bengal.*

Syphilis.—Compared with the preceding year the rate of admissions is higher for the Presidency (fractionally), Saugor, Sirhind (39·1 per 1,000 men), and Rawal Pindi, but is lower for each of the other Divisions, in the majority of instances the reduction is a considerable one.

Scrofula, Phthisis, &c.—Compared with the preceding year the rates of admissions are higher for the Presidency, Rohilcund, Meerut, Sirhind, Rawal Pindi, and Peshawar Divisions, but are lower for the others.

Anæmia.—Higher rates of admissions than in 1875, are shown for the Presidency, Allahabad, Rohilcund, Meerut, Rawal Pindi, and Peshawar Divisions, lower ones for the others.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions is higher than in the preceding year for the Allahabad, Oudh, Saugor, Gwalior, Sirhind, and Peshawar Divisions, that of the last named being more than twice as high; the greater or lesser prevalence of neuralgia, determines the proportion of admissions for diseases of the order in the various Districts; as most of the deaths are due to sunstroke, the highest rates of mortality, do not correspond with the highest rates of prevalence of disease; there is an exception to this however in the instance of Peshawar, where the highest of both rates are associated; 10 deaths from sunstroke took place in this Division. One death (in the 51st Regiment) at Peshawar was due to hydrophobia.

Diseases of the Eye.—The rates of admission for diseases of this order are higher than in 1875 for the Presidency, Allahabad, and Rawal Pindi Divisions; the excess is not important in any instance, as the whole number of admissions is small.

Diseases of the Circulatory System.—The rates of admissions for diseases of this order in the Presidency, Allahabad, Saugor, Gwalior, Meerut, Rohilcund, and Lahore, are lower than in 1875; nearly three-fourths of the admissions were on account of palpitation.

Diseases of the Respiratory System.—Compared with the preceding year, the rates of admission are higher for the Presidency, Allahabad, Oudh, Saugor, Gwalior, and Sirhind Divisions, whilst they are lower for the remaining ones; the decrease amounts to 8·33 per 1,000 men for Rohilcund, to 5·09 for Lahore, to 44·7 for Rawal Pindi, and to 45· for Peshawar.

Diseases of the Digestive System.—The rate of prevalence of diseases in this order, is higher than for 1875, in the Presidency by 60·7, in the Allahabad by 46·7, in the Oudh by 22·6, in the Sirhind by 12·8, and in the Peshawar by 44·5 per 1,000 men; the rate is lower in the Rohilcund Division by 27·4 per 1,000 men, in the Saugor by 29·8, in the Gwalior by 53·8, in the Meerut by 26·, and in the Lahore by 38·9. In the Rohilcund, and in Saugor, a higher rate of mortality, is in connexion with a lower rate of prevalence, but in the Gwalior, and in the Meerut Divisions, both rates are lower.

The relative prevalence of dyspepsia, dysentery, diarrhœa, and hepatitis, in the several Divisions, and the deaths due to them, are shown in the first of the following Tables, in the second the relation of the prevalence and of the mortality of the last three mentioned diseases are exhibited:—

Bengal.

	Hepatitis, including Abscess of the Liver.				Dysentery.				Diarrhœa.				Total.			
	Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Annual Ratio per 1,000 of Strength.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Ist Quarter	308	14	8·3	·38	163	2	4·4	·05	289	1	7·8	·03	760	17	20·5	·46
IInd „	421	16	11·4	·43	227	2	6·2	·06	404	1	11·0	·03	1,052	19	28·6	·52
IIIrd „	521	18	14·2	·49	314	6	8·6	·17	675	1	18·5	·03	1,510	25	41·3	·68
IVth „	448	24	12·3	·65	236	8	6·4	·22	396	1	10·8	·03	1,080	33	29·5	·90

Ratio per 1,000 of the Strength.

Divisions.	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	46·7	·94	46·4	1·32	27·6	·52	17·8	...	27·0	1·08	21·1	...	22·2	·44
Diarrhœa	53·3	...	61·3	·33	61·4	·26	26·3	...	43·0	·36	35·9	·57	43·3	...
Hepatitis and Abscess of the Liver	46·7	1·88	32·5	2·96	54·9	1·57	29·7	1·70	30·3	1·44	45·6	1·14	58·0	3·33
Total	146·7	2·82	140·7	4·61	143·9	2·35	73·8	1·70	100·3	2·87	102·6	1·71	123·5	3·77
Dyspepsia	55·7	...	43·1	...	53·3	...	31·3	...	48·3	...	32·0	...	35·1	...

Divisions.	Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		Troops on the March.		Camp of Exercise.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	21·6	·25	15·1	...	14·3	...	30·6	·84	26·6	·53	16·7	...	24·2	..
Diarrhœa	42·5	...	50·0	·30	46·3	...	51·2	...	72·1	...	20·2	...	49·5	...
Hepatitis and Abscess of the Liver	31·4	2·04	36·9	2·73	46·7	1·43	65·0	1·68	70·3	2·01	17·3	...	14·5	...
Total	95·5	2·29	102·0	3·03	107·3	1·43	146·8	2·52	169·0	2·54	54·2	...	88·2	...
Dyspepsia	39·7	...	45·7	...	50·3	...	44·0	...	50·0	...	7·4	...	16·0	...

Diseases of the Urinary System.—The rate of admissions for diseases of this order is higher than in 1875, in all the Divisions except Allahabad.

Diseases of the Cutaneous System.—The rate of admissions is higher than in 1875, in the Allahabad, Oudh, Saugor, and Lahore Divisions, but is lower in each of the others. There were only 16 admissions for "Delhi Boil."

Conditions, &c.—*General Debility.*—The rate of admissions for this condition is higher for every division than in 1875, except for the Saugor, Gwalior, and Sirhind.

Poisons.—Of the admissions in this order 43 were due to poisoning by alcohol, in two instances fatal, 42 to delirium tremens, four of the attacks being fatal, one to poisoning by decayed meat, and one to a snake bite.

The admissions and deaths in each corps which served in the Bengal Command, are shown in the following Table:—

Regiments, &c.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths. In India.	Deaths. Of Invalids.	Invalided.	Constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Died.	Invalided.	Constantly Sick.	Average Sick time to each Soldier.	Average duration of each case of Sickness.	Stations during the Year.
												Days.	Days.	
4th Hussars	9	435	621	5	..	19	21·97	1427·6	11·50	43·68	50·51	18·44	12·91	Rawal Pindi, 12 months; det. at Ghareeal Camp.
9th Lancers	1	466	799	9	..	26	33·41	1714·6	19·31	55·80	71·70	26·17	15·26	Sialkot, 12.
10th Hussars	4	458	411	10	..	17	24·87	897·4	21·83	37·12	54·30	19·82	22·09	Camp of Exercise, 1½; Muttra, 10; Delhi, ½.
11th ,, ...	10	434	493	3	..	2	15·91	1135·9	6·91	4·61	36·66	13·38	11·79	Camp of Exercise, 1¼; Umballa, 10; Delhi, ¾.
13th ,, ...	3	433	678	6	1	23	39·89	1565·8	16·17	53·12	92·12	33·63	21·48	Camp of Exercise, ½; Lucknow, 11½.
15th ,, ...	4	463	805	7	..	24	26·74	1738·7	15·12	51·84	57·75	21·08	12·12	Camp of Exercise, 1; Meerut, 10¾; Delhi, ¼.
Total	..	2,689	3,807	40	1	111	162·79	1415·8	15·25	41·28	60·52	22·10	15·61	
*Hd.-Qrs. and A Batt. A Brig. R.H.A.	11	162	189	..	..	2	6·90	1166·7	..	12·34	42·59	15·55	13·32	Camp of Exercise, 1¼; Umballa, 8½; on the March.
B Batt. ,, ...	11	139	257	1	..	5	7·78	1849·0	7·19	35·97	55·97	20·43	11·05	Lucknow, 9¼.
C ,, ,, ...	11	149	191	2	..	3	8·03	1281·9	13·42	20·13	53·89	19·72	15·38	Camp of Exercise, 1¼; Umballa, 9; on the March.
D ,, ,, ...	11	143	187	3	..	7	7·01	1307·7	20·98	48·95	49·01	17·90	13·67	Camp of Exercise, ¾; Meerut, 8¾; on the March.
E ,, ,, ...	11	123	100	1	..	..	2·76	813·0	8·13	..	22·44	8·11	10·07	Morar, 10; on the March.
†Hd.-Qrs. and B Batt. B Brig. R.H.A.	..	18	33	..	..	2	·83	1833·3	..	..	46·11	16·83	9·18	Umballa ¾; on the March, ½.
‡C Batt. B Brig. R.H.A.	..	17	32	1	..	..	·69	1882·4	58·82	..	40·59	14·81	7·09	Lucknow, 1 month; on the March, ¼.
‡D ,, ,, ,,	..	17	23	..	..	..	·52	1352·9	..	..	30·59	11·17	8·25	Meerut, 1; on the March.

A Batt. C Brig. R.H.A.	4	155	237	6	..	10	8·87	1529·0	38·71	64·52	57·22	20·88	13·66	Camp of Exercise, 1¾; Meerut, 10; Delhi, ¼.
Hd.-Qrs. and B Batt. F Brig. R.H.A.	Over 10 yrs.	149	325	15	..	7	7·60	2148·3	100·67	46·91	51·00	18·62	8·54	Peshawar, 12.
A Batt. „ „		139	256	1	..	..	8·14	1841·7	7·19	..	58·56	21·38	11·61	Meen Meer, 12.
C „ „ „		146	339	..	..	12	8·08	2321·9	..	82·20	55·34	20·20	8·70	Sialkot, 12.
E „ „ „		148	173	5	..	5	5·32	1169·7	33·79	33·79	35·95	13·12	11·25	Campbellpore, 8¾; on the March.
F „ „ „		142	157	1	..	5	4·92	1105·6	7·04	35·21	34·65	12·64	11·44	Rawal Pindi, 9; Delhi, and on the March.
3rd Batt. 5th Brig. R.A.	9	14	29	..	..	1	1·22	2071·4	..	71·43	87·14	31·81	15·36	Detachment at Calcutta, 12.
Hd.-Qrs. and B Batt. 8th Brig. R.A.	10	153	200	5	..	9	8·28	1307·2	32·68	58·82	54·12	19·75	15·10	Camp of Exercise, 1; Meerut, 10¾; Delhi, ¼.
A Batt. „ „	10	149	265	..	..	12	13·00	1778·5	..	80·54	87·25	31·85	17·91	Camp of Exercise, and on the March, 2; Jullundur, 10.
C „ „ „	10	147	482	4	..	5	11·01	3279·0	27·21	34·01	74·90	27·34	8·34	Mooltan, 12.
D „ „ „	10	145	222	2	..	6	5·33	1531·0	13·80	41·38	36·76	13·42	8·77	Meen Meer, 10¼; on the March, 1¼.
E „ „ „	10	134	227	2	..	6	6·92	1691·8	14·92	44·78	51·64	18·85	11·13	Ferozepore, 12.
F „ „ „	10	144	188	..	..	11	7·27	1305·6	..	76·40	50·49	18·43	14·15	Camp of Exercise, 1; Meerut, 10¼; Delhi, ¾.
G „ „ „	10	146	272	..	..	5	6·37	1863·0	..	34·25	43·63	15·92	8·55	Peshawar, ½; Rawal Pindi, 11½.
H „ „ „	10	144	301	3	..	6	7·67	2090·2	20·83	41·67	53·26	19·44	9·31	Peshawar, 12.
Hd.-Qrs. and A Batt. 11th Brig. R.A.	3	166	318	3	..	5	11·47	1915·7	18·07	30·12	69·10	25·22	13·16	Barrackpore and Calcutta, 12.
B Batt. „ „	3	169	415	6	..	12	14·89	2455·6	35·50	71·00	88·11	32·16	13·10	Ditto ditto
C „ „ „	3	167	264	1	..	10	13·10	1580·9	5·99	59·89	78·44	28·63	18·04	Dinapore, 12.
D „ „ „	3	164	316	1	..	..	15·32	1926·8	6·10	..	93·41	34·09	17·70	Benares, 12.
E „ „ „	3	162	257	4	..	2	9·32	1586·4	24·70	12·35	57·54	21·00	13·24	Allahabad, 12.
F „ „ „	3	160	248	3	..	2	8·00	1555·6	18·75	12·56	50·00	18·26	11·78	Saugor, 12.
G „ „ „	3	164	217	1	..	5	7·25	1323·1	6·10	30·48	44·21	16·13	12·19	Nowgong, 11½; on the March.
Invalid of the Brigade	..	..	..	..	1	..	..	..	..	..	..	..	..	

* Brigade embarked for England. † Brigade arrived from England in November. ‡ Brigade arrived from England in November.

Regiments, &c.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths. In India.	Deaths. Of Invalids.	Invalided.	Constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Died.	Invalided.	Constantly Sick.	Average Sick time to each Soldier.	Average duration of each case of Sickness.	Stations during the Year.
												Days.	Days.	
Hd.-Qrs. and 2nd Batt. 13th Brig. R.A.	5	96	159	2	..	4	5·10	1656·3	20·83	41·67	53·13	19·39	11·71	Mean Meer, Fort Lahore, and Fort Govindgarh, 12.
1st Batt. „ „	5	90	233	2	..	3	5·62	2588·9	22·22	33·33	62·41	22·79	8·80	Fort Govindgarh, 12; dets. at Fort Lahore, &c.
3rd „ „ „	5	83	163	2	..	5	4·86	1964·0	24·10	60·24	58·55	21·37	10·88	Fort Attock.
4th „ „ „	5	84	146	5	..	2	4·02	1738·1	59·52	23·81	47·86	17·42	10·05	Peshawar, 12.
5th „ „ „	5	87	263	1	..	9	7·88	3023·0	11·50	103·45	90·58	32·95	10·94	Ferozepore, 12.
6th „ „ „	5	93	166	2	..	3	4·62	1139·8	21·52	32·26	49·68	18·13	15·91	On the March, 3½; Kyra Gully, 6½; dets. at Rawal Pindi, &c.
7th „ „ „	5	87	89	..	..	1	3·38	1023·0	..	11·50	38·85	14·18	13·86	Calcutta, 12; det. at Darjeeling.
Hd.-Qrs. and G Batt. 19th Brig. R.A.	Over 10 years.	161	224	4	..	9	7·66	1391·3	24·84	55·90	47·58	17·36	12·48	Lucknow, 12.
A Batt.. „ „		155	200	1	..	3	8·91	1290·3	6·45	19·35	57·49	20·98	16·26	Camp of Exercise, ¾; Agra, 10½; Delhi, ¾.
B „ „ „		152	199	2	..	7	6·72	1309·2	13·16	46·12	44·21	16·14	12·33	Morar, 12.
C „ „ „		153	146	1	..	3	7·73	954·2	6·54	19·61	50·52	18·44	19·32	Camp of Exercise, ¾; Bareilly, 11.
D „ „ „		146	203	3	..	8	7·82	1391·8	20·55	54·80	53·57	19·55	14·06	Fyzabad, 12.
E „ „ „		142	169	3	..	10	9·89	1190·0	21·13	70·42	69·64	25·42	21·36	Sitapur, 12.
F „ „ „		160	153	5	..	4	5·39	956·3	31·25	25·26	33·70	12·29	12·85	Cawnpore, 12.
*Hd.-Qrs. and 1st Batt. 21st Brig. R.A.	..	94	125	1	..	3	4·21	1329·8	10·64	31·91	44·79	16·35	12·30	On the March, and at Morar, 10½.
2nd Batt. „	..	72	102	5	..	1	6·84	1416·7	69·44	13·89	95·00	34·68	24·48	On the March, and at Gwalior, 9½.

*3rd Batt, 21st Brig. R.A.	..	72	136	3	..	2	5·65	1888·9	41·67	27·78	78·47	28·64	15·16	Allahabad, 10 months.
*4th „ „ „	..	72	182	5	..	1	7·53	2528·0	69·44	13·89	104·58	38·17	15·10	Lucknow, 9¾.
*5th „ „ „	..	72	142	3	..	2	4·68	1972·0	41·67	27·78	65·00	23·73	12·03	Agra, 10; on the March, ½.
*6th „ „ „	..	70	231	5	..	3	6·80	3300·0	71·43	42·86	97·14	35·46	10·70	Delhi, 9¾.
*7th „ „ „	..	80	77	1	..	1	3·70	962·5	12·50	12·50	46·25	16·86	17·54	On the March, ½; Jutogh, 8; Camp, 1¼.
†1st Batt. 23rd Brig. R.A.	..	10	4	..	..	..	·16	400·0	..	..	16·00	5·84	14·60	Delhi, 1¼.
Total Royal Artillery..	..	6,206	10,172	127	1	239	353·04	1639·6	20·63	38·52	56·90	20·77	12·67	
41st Company Royal Engineers ..	..	45	25	2	..	2	·82	555·5	44·44	44·44	18·22	6·65	11·97	Roorkee, 12; dets. at Chackrata, Rawal Pindi, &c.
2nd Batt. 1st Foot ..	10	837	2,417	24	4	69	78·85	2888·7	33·45	82·44	94·21	34·39	11·80	Meen Meer, 12; dets. at Fort Lahore and at Ranikhet.
‡1st „ 3rd „ ..	10	680	865	16	1	33	38·30	1272·1	25·00	48·53	56·31	20·56	16·16	Cawnpore, 9; dets. at Calcutta and at Cawnpore.
1st „ 5th „ ..	10	858	1,316	14	..	28	41·95	1533·8	16·31	32·63	48·89	17·85	11·64	Allahabad, 12; det. at Chunar.
1st „ 6th „ ..	8	902	1,229	8	..	36	53·03	1362·5	8·87	39·91	58·79	21·46	15·73	Camp of Exercise, 1; Roorkee, 9½; Delhi, 1½: det. at Delhi.
1st „ 8th „ ..	8	884	1,458	31	1	39	45·65	1649·3	36·20	44·12	51·64	18·85	11·43	Camp of Exercise, ½; Peshawar, 9½; on the March, and in Camp; dets. at Cherat, Nowshera, &c.
2nd „ 9th „ ..	2	900	1,143	21	..	24	35·13	1270·0	23·33	26·67	39·03	14·25	11·22	Rawal Pindi, 12; dets. at Fort Attock, and at Ghareeal Camp.
1st Batt. 11th Foot ..	12	814	944	5	1	7	33·94	1159·7	7·37	8·60	41·70	15·22	13·12	Jubbulpore, 12; det. at Saugor.
§1st „ 12th „ ..	..	124	214	..	..	..	5·67	1726·0	..	..	45·79	16·70	9·67	Umballa, 3.
2nd „ „ „ ..	12	887	688	10	1	27	40·36	775·6	12·40	30·44	45·40	16·61	21·41	Camp of Exercise, ¾; Calcutta, 11.
Hd.-Qrs. and 1st Batt. 14th Foot.	8	505	676	5	3	11	33·71	1338·6	15·17	21·78	66·75	24·36	18·20	Sitapur, 12.
Wing, 1st Batt. 14th Foot.	8	352	415	5		8	27·19	1179·0		22·73	77·24	28·20	23·91	Benares, 12.
1st Batt. 17th Foot ..	6	899	1,361	7	..	37	43·73	1514·0	7·78	41·16	48·69	17·75	11·72	Peshawar, 2½; Kooldunnah, 6½; Rawal Pindi, 2½; dets. at Barragully, Kalabagh, Chunglagully, &c.
1st Batt. 18th Foot ..	2	920	884	11	1	31	40·08	960·9	13·04	33·70	43·57	15·90	16·55	Bareilly, 12; dets. at Moradabad and at Ranikhet.

* Arrived from England in February. † Embarked for England. ‡ Arrived from Straits Settlements in March. § Arrived from England in October.

Regiments, &c.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths.		Invalided.	Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick time to each Soldier.	Average duration of each case of Sickness.	Stations during the Year.
				In India.	Of Invalids.			Admitted.	Died.	Invalided.	Constantly Sick.			
												Days.	Days.	
*2nd Batt. 19th „ ..	13	786	449	11	1	8	28·34	571·2	15·27	10·17	36·05	13·16	23·04	Ranikhet, 10½; det. at Bareilly; on the March, 1½.
Hd.-Qrs. and 2nd Batt. 22nd Foot.	3	418	151	6	..	8	6·42	361·2	14·36	19·14	15·36	5·61	15·52	Ranikhet, 12.
Wing, 2nd Batt. 22nd Foot.	3	483	405	6	..	12	19·96	838·5	12·42	24·84	41·33	15·08	17·99	Shahjehanpore, 12.
1st Batt. 25th Foot ..	1	900	1,454	27	1	38	69·93	1616·7	31·11	42·22	77·78	28·36	17·57	Fyzabad, 12.
34th Foot	1	929	1,615	16	..	36	67·55	1738·4	17·21	38·75	72·71	26·54	15·26	Ferozepore, 12.
39th „	7	917	892	7	1	26	37·18	972·7	8·72	28·35	40·55	14·80	15·21	Camp of Exercise, 1½; Dagshai, 9; Delhi, 1½.
40th „	4	906	1,459	14	..	28	50·20	1610·4	15·45	30·91	55·41	20·22	12·56	Calcutta, Dum Dum, Barrackpore, 12.
51st „	4	859	1,249	17	..	48	44·41	1454·0	19·79	55·88	51·23	18·81	12·98	Camp of Exercise, ¾; Peshawar, 9¼; on the March, 2; dets. at Cherat and Nowshera.
54th „	5	851	916	6	..	15	51·23	1076·4	7·05	17·63	60·20	21·86	20·41	Morar, 12; dets. at Kasauli, and Fortress Gwalior.
†55th „	12	166	46	1	1	..	3·27	277·1	12·05	..	19·70	7·20	25·95	Delhi, 1¼.
59th „	2	877	817	8	..	20	36·70	931·6	9·12	22·81	41·85	15·28	16·40	Agra, 11; Delhi, 1.
2nd Batt. 60th Foot ..	9	868	703	11	..	35	35·69	809·9	12·64	40·32	41·12	15·01	18·53	Merutt 12; det. at Fatehgarh.
‡4th Batt. 60th Foot ..	..	47	62	..	..	..	·87	1319·2	..	..	18·51	6·76	5·12	Agra, ½.
62nd Foot	8	890	482	9	1	9	25·81	544·0	11·23	10·10	29·00	10·57	19·54	Camp of Exercise, 1; Chakrata, 8¾; Delhi, ½; on the March.
63rd Foot	6	825	1,695	5	1	21	48·56	2054·5	7·27	25·45	58·86	21·48	10·46	Jhansi, 10¾ months; Delhi, 1¼; dets. at Fortress Gwalior and at Nowgong.
65th „	6	853	1,195	7	..	39	59·47	1401·0	8·21	45·72	69·72	25·45	18·17	Lucknow, 12.

70th „	5	878	2,093	27	..	65	63·45	2383·9	30·76	74·03	72·27	26·38	11·06	Peshawar, Nowshera, and Cherat, 12; dets. at Fort Attock, Dera Ismail Khan, and at Hill Depôt, &c.
72nd „	5	877	1,535	14	1	53	51·10	1750·3	17·10	60·43	58·27	21·27	12·15	Sialkot, 12; dets. at Amritsar, and at Banikhet.
73rd „	3	925	828	11	..	26	52·12	895·1	11·89	28·11	56·34	20·57	23·06	Camp of Exercise, ¾; Subathu, 10¼; on the March; det. at Solun.
81st „	2	905	1,774	15	1	25	55·51	1960·2	17·68	27·62	61·35	22·40	11·42	Jullundur, 12; dets. at Kangra, Bhagsu, Dalhousie, &c.
85th „	9	834	1,167	10	3	38	75·51	1399·3	15·60	45·56	90·54	33·05	23·73	Camp of Exercise, ¾; Lucknow, 11¼; det. of Fategarh.
92nd „	9	855	1,540	8	1	13	47·11	1801·2	10·53	15·20	55·10	20·11	11·16	Mooltan, 10¼; Camp, 1¾; det. at Dera Ismail Khan.
109th „ „ ..	..	896	1,271	17	..	39	53·97	1418·5	18·97	43·53	60·23	21·97	15·50	Dinapore, 12; det. at Hazaribagh.
4th Batt. Rifle Brig. ..	3	905	1,070	8	1	22	41·70	1182·3	9·94	24·31	46·08	16·82	14·22	Camp of Exercise, ¾; Umballa, 9; on the March; dets. at Solun.
Total	..	28,212	38,478	418	25	974	1543·65	1363·5	15·70	34·52	54·72	19·97	14·64	

* Embarked for England. † Proceeded to Aden. ‡ Arrived from England in December.

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For the purpose of contrasting the results of sickness in relation to length of residence, the different corps are grouped, in the following Table, according to their periods of service in the Command.

Corps.	Completed years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number of constantly Sick.	Rate per 1,000 of Annual Strength.				Average Sick time to each Soldier.	Average duration of each case of Sickness.
							Admitted.	Died.	Invalided.	Constantly Sick.		
											Days.	Days.
B Brig. Rl. Horse Artillery 21st Brig. Royal Artillery... 1st Battalion 12th Foot ... 4th ,, 60th ,, ...	Under 1 year	755	1,359	24	15	47·09	1800·0	31·79	29·87	63·56	23·20	12·89
9th Lancers ... ... 1st Battalion 25th Foot ... 34th Foot	1 year	2,295	3,868	53	100	170·89	1685·4	23·09	54·86	74·46	27·18	16·13
2nd Battalion 9th Foot ... 1st ,, 18th ,, ... 59th Foot ... ... 81st ,, ...	2 years	3,602	4,618	57	100	167·42	1282·1	15·82	27·76	46·48	16·91	13·23
13th Hussars... ... ... 11th Brig. Royal Artillery... 2nd Battalion 22nd Foot ... 73rd Foot ... ... 4th Batt. Rifle Brigade ...	3 years	4,316	5,167	59	127	239·47	1197·2	13·67	29·41	55·48	20·25	16·92
10th Hussars... ... ... 15th ,, ... A Battery, C Brig. R.H.A ... 40th Foot ... ... 51st ,, ...	4 years	2,841	4,161	54	127	155·09	1464·6	19·01	44·70	54·59	19·92	13·60
13th Brig. Royal Artillery... 54th Foot ... ... 65th ,, ... 70th ,, ... 72nd ,, ...	5 years	4,079	6,898	69	199	260·73	1688·7	16·91	48·76	63·92	23·33	13·80
1st Battalion 17th Foot ... 63rd Foot	6 years	1,724	3,056	13	58	92·26	1772·6	7·54	35·64	55·42	19·11	11·02
39th Foot	7 years	917	892	8	26	37·18	972·7	8·72	28·35	40·55	14·80	15·21
1st Battalion 6th Foot ... 1st ,, 8th ,, ... 1st ,, 14th ,, ... 62nd Foot	8 years	3,533	4,260	63	103	185·39	1205·8	17·83	29·15	52·47	19·15	15·88
4th Hussars ... ... 3rd Battery 5th Brig. R.A. 2nd Battalion 60th Foot ... 85th Foot ... ... 92nd ,, ...	9 years	3,006	4,060	38	106	181·50	1350·6	12·64	35·26	60·37	22·04	16·32
11th Hussars... ... ... A Brig. Rl. Horse Artillery F Brig. Rl. Horse Artillery 8th Brig. Royal Artillery ... 19th Brig. Royal Artillery ... 23rd Brig. R.A. ... ... 2nd Battalion 1st Foot ... 1st ,, 3rd ,, ... 1st ,, 5th ,, ... 1st ,, 11th ,, ... 2nd ,, 12th ,, ... 2nd ,, 19th ,, ... 55th Foot ... ... 109th ,, ...	10 years and upwards	10,219	14,118	174	363	520·60	1381·5	17·03	35·52	50·96	18·59	13·46

Officers. *Bengal.*

In a mean annual strength of 1,363 commissioned officers, there were 1,098 attacks of illness, and 37 deaths, being in the rates of 805·6 and of 27·15 per 1,000 of the strength respectively. The rate of sickness is 36·9 per 1,000, and that of deaths is 13·81 (or more than double) higher, than the corresponding rate of 1875.

General Diseases.—The proportion of attacks of diseases in this class is 338·9 per 1,000 of the strength, that of the *febrile group* being 289·8, and that of the *constitutional* 48·4 per 1,000. The death-rate for the class is 8·07 per 1,000 of the strength, of this 7·34 is the proportion for the *febrile*, and ·73 per 1,000, that for the *constitutional group*.

Eruptive Fevers.—There were 53 attacks of fevers of this nature, 26 of which were of dengue.

Continued Fevers.—Enteric fever, caused 5 attacks, one of them being fatal. Simple continued fever, caused 79, and febricula, 72 attacks.

Paroxysmal Fevers.—Ague caused 162, and remittent fever 36 attacks, 4 of the latter were fatal.

Cholera.—Five officers were attacked by this disease, in each instance fatally.

The death in the *constitutional group*, was from cancer.

Diseases of the Nervous System.—Sunstroke caused 1 death.

Diseases of the Eye.—The proportion of attacks is 15·4 per 1,000 of the strength (that of the non-commissioned officers and men being 17·8 per 1,000).

Diseases of the Circulatory System.—Of the 7 attacks, 3 were for palpitation. The death was due to fatty degeneration of the heart.

Diseases of the Respiratory System, caused 39 attacks; the death in this order was due to pneumonia.

Diseases of the Digestive System.—The rate of attacks is 167·3 per 1,000 of the strength (that for the non-commissioned officers and men being 217·2), the rate of deaths is 5·87 per 1,000 (that of the men is 3·26 per 1,000). The fatal illnesses were dysentery (3), diarrhœa (1), intussusception of the bowel (1), hepatitis (3).

Poison.—The death returned in this class was due to poisoning by opium.

Conditions, &c.—*General Debility.*—17 illnesses were ascribed to this condition; 1 was fatal.

Injuries.—Accidental.—The accidental deaths were due to drowning (1), injuries by a tiger (1), gunshot wound (1), injury to spine (1), injury from a railway accident (1).

Women.

The average annual strength of the wives of the non-commissioned officers and men in the Command was 3,552; the admissions into hospital were 3,365, and the deaths (in India) were 74; the rate of admissions is 947·4, and that of deaths is 20·83 per 1,000 of the strength respectively.

Diseases of the *febrile group*, caused 1177 admissions, being in the rate of 331·4 per 1,000 of the strength; the rate of mortality is 5·38 per 1,000. Diseases of the *constitutional group*, caused 163 admissions, being in the rate of 45·9 per 1,000 of the strength; the rate of mortality is 7·09 per 1,000.

Eruptive Fevers.—The admissions were 2 for smallpox, 11 for measles, 32 for dengue.

Continued Fevers.—Enteric fever, caused 4 admissions, 2 of the attacks were fatal. Simple continued fever, caused 233 admissions, 4 of the attacks being fatal. Febricula, caused 123 admissions. Paroxysmal fevers, caused 753 admissions, being in the rate of 212· per 1,000 of the strength. One death was due to ague, and 4 were due to remittent fever.

Cholera.—There were 13 admissions for cholera, 8 of the attacks were fatal.

Scrofula and Phthisis.—25 admissions and 9 deaths were due to diseases of this nature.

Anæmia, caused 96 admissions, 1 attack was fatal.

Diseases of the Nervous System.—There were 6 admissions for sunstroke, all the attacks ended fatally. Epilepsy caused 14 admissions; a death is

Bengal. returned under the head of convulsions. Hysteria caused 20 admissions There were 6 admissions for mental disease, one attack of which was followed by death.

Diseases of the Eye.—The rate of prevalence of diseases of this order (conjunctivitis in all except in three instances) is 51·2 per 1,000 of the strength (being about three times greater than that for the non-commissioned officers and men).

Diseases of the Circulatory System.—Palpitation caused 11 admissions. The deaths in this order were due to valve disease of the heart (1), syncope (2), embolism (1), rupture of an artery (1).

Diseases of the Respiratory System.—Of the 5 deaths 2 were due to bronchitis, and 3 to pneumonia.

Diseases of the Digestive System.—The rate of admissions is 162·2 and that of deaths is 4·56 per 1,000 of the strength; as in the preceding year this shows a lower admission-rate associated with a higher death-rate, than in the case of the non-commissioned officers and men.

There were 63 admissions for abortion. Three deaths were consequent on the puerpural state. The admissions into hospital for childbirth were 883 (which are not included amongst those for disease); in 5 instances death ensued.

General Debility.—639 admissions are returned as due to this condition, which proved fatal in three instances.

Children.

In an annual average strength of 6,870 children of non-commissioned officers and men, there were 5,057 admissions into hospital, and (in India) 358 deaths, being in the proportion of 736·1, and of 52·11 per 1,000 of the strength respectively. The admission-rate is below that of the preceding year, and the death-rate shows a reduction of 20·71 per 1,000 of the strength (the death-rate for persons presumably of similar ages in England, on an average of 10 years, is 27·22 per 1,000 of the living).

General Diseases.—The admissions for diseases of the *febrile group*, of this class are in the rate of 255·5, and the deaths in that of 7·28 per 1,000 of the strength; compared with 1875, there is a reduction in the death-rate of 11·06 per 1,000. For diseases of the *constitutional group*, the admission-rate is 21·9, and the death-rate is 5·39 per 1,000 of the strength.

Eruptive Fevers.—There were 21 admissions for chicken pox, 409 for measles (13 attacks were fatal), 1 for scarlet fever, and 17 for dengue.

Continued Fevers.—There were 3 admissions for enteric fever. Simple continued fever, and febricula together, caused 465 admissions; 3 attacks of the first-named disease were fatal.

Paroxysmal Fevers.—Ague caused 670 admissions (3 deaths), remittent fever, 92 admissions (13 deaths).

Cholera, caused 15 admissions and 12 deaths.

Other Diseases.—Diphtheria caused 2 admissions and 1 death, hooping cough 41 admissions and 3 deaths, erysipelas 8 admissions and 1 death.

Scrofula and Phthisis.—The admissions for diseases in this group are in the rate of 8·44 per 1,000 of the strength; the admissions for pulmonary consumption were 4, (2 deaths); the admissions for tabes mesenterica were 26, (16 deaths).

Anæmia, caused 79 admissions, and 7 deaths.

Diseases of the Nervous System.—The deaths in this order were 80 in number, most of them were due to convulsions.

Diseases of the Eye.—The admissions for conjunctivitis (904) are in the rate of 131·6 per 1,000 of the strength.

Diseases of the Respiratory System.—Croup caused 16 admissions and 1 death; 2 deaths are also returned as due to œdema of the glottis. There were 16 deaths from bronchitis, and 7 from pneumonia.

Diseases of the Digestive System, caused 1,125 admissions and 121 deaths, being in the rates of 163·7 and of 17·61 per 1,000 of the strength respectively. Teething, caused 256 admissions and 33 deaths; dysentery 101 admissions and

14 deaths; diarrhœa 602 admissions and 68 deaths; hepatitis 6 admissions and 1 death; splenitis 11 admissions and 1 death. *Bengal.*

General Debility.—447 admissions, and 32 deaths, are returned under this condition (14 deaths of children prematurely born are not included).

Poisons.—In this class there was 1 admission for poisoning by arsenic, 3 for poisoning by alcohol, and one for the poison of a snake (fatal).

SANITARY REPORT.*

The sanitary history of the Bengal Command for 1875 has been to some extent anticipated by the remarks embodied in the Report for 1874, and which were not written till late in the following year.

During the period under review in the present report, the medical administration of the Command was a divided one; Surgeon-General Currie, C.B., having been invalided home in June, the charge of the department in Bengal devolved on Deputy Surgeon-General T. Crawford, the then senior officer of the British medical service in the Command.

This will account in some measure for the absence of full details of sanitary inspections which this report would doubtless have contained had Surgeon-General Currie been able to return to India in time to make his annual inspections during the winter of 1875-76.

In his absence, and to enable the officiating Surgeon-General to report upon questions of general importance, the latter officer visited several of the more important military stations in the Command, and the results of his observation, as well as the points of sanitary importance discussed in the reports from administrative officers of Circles, are given below :—

Presidency Circle.—The medical history of the Circle is described as uneventful, and therefore satisfactory. There were no deaths from cholera among the troops, and the death-rate from all causes was only 13·45 per 1,000, hepatitis being the most fatal form of the diseases met with.

The sanitary defects pointed out can hardly be said to have contributed materially to this mortality. Considerable improvements have been made, and arestill in progress, in the barracks at Darjeeling, where two of the old barracks have been demolished to be replaced by new buildings, one of which has been, completed and the other is in course of construction. The married quarters for the Royal Artillery have also been finished, and further improvements in barrack accommodation are in contemplation.

At Hagarebagh, improvements have also been made by throwing down two barracks, and thus lessening surface crowding, and providing for free atmospheric movement.

As might be expected from its situation and climate, malarious fevers were the prevalent diseases at Barrackpore. These are correctly attributed to the low marshy character of the surrounding country. The sickness from this and other causes was, however, less than usual, and this is attributed to improved water supply. Further advances in this direction are in contemplation, and will here, as elsewhere in this Circle, yield still greater benefits.

During his inspection of this station in December, Dr. Crawford noticed that the fever then prevalent was, as stated above on the authority of Surgeon-Major Stewart's report, a purely malarious one, attributable to local malarious influences. The station is surrounded by jungle, and the trees and hedges are unpruned, so that the free circulation of air is impeded. The surface and subsoil drainage is also less free and open than it should be. Seasonable influences have no doubt much effect upon this fever, but improved drainage and judicious pruning of trees, and clearing of neighbouring jungle where too close and thick, would mitigate the type of the disease. Night urinals in barracks should also be provided, so that the men might be spared, as much as possible, exposure to the chilling influences of the night air. It is worthy of notice that the residents along the high river bank do not suffer from malarious fever

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* The above Report was received too late for publication in the Volume for 1875.

Bengal. nearly to the same extent as those occupying bungalows in low sites further into the lines.

Allahabad Circle.—The health of the troops in this Circle during the year has been good, the mortality being only 15·67 per 1,000, notwithstanding the appearance of cholera in an epidemic form at Allahabad and Cawnpore. Venereal diseases are also very prevalent in this Circle, the 73rd Regiment again showing the highest number of admissions under this head. The Deputy Surgeon-General ascribes the prevalence of venereal in a good many cases to defective regimental supervision.

Chunar is not in a very satisfactory state. Deputy Surgeon-General Kendall reports:—

"The hospital is situated quite adjacent to a portion of the town of Chunar, called Mohanna; this, before the inundation of the town in August last, according to reports on the subject, was covered with hovels huddled together in every conceivable manner, without the smallest attempt at arrangement as far as escape of water, &c. It is less than a quarter of a mile long and about one-sixth of the length in breadth, with a population in 1872 of 10,346 persons. The inhabitants of this densely populated place are of the poorest class, utterly destitute of any sense of, or desire for, cleanliness. Heaps of animal and vegetable matter, and even human excrement in various stages of decomposition, are only too frequently met with, and render the atmosphere of the place fæcal and sickening. In fact there exists here every essential and accessory, if not for the generation at least to the propagation of every disease; cases of most infectious disease are always to be found. A large proportion of the houses of this spot were destroyed by the flood of August last, and representations detailing the deplorable sanitary condition of the place were then made to the Quartermaster-General, with a view to the purchase and clearing of the town, by Government but without success. In the event of an outbreak of cholera in a quarter so circumstanced, and in such proximity to the hospital, what is to be done with patients? Hospital tents erected at the fort, or any other place, will not be suitable at all seasons. I think, then, the establishment of an hospital ward in the fort to be desirable, and deserving of timely consideration."

Cawnpore is greatly and urgently in need of a new hospital for the sick of the European corps stationed there. This necessity has been represented, and will no doubt receive every consideration.

Jubbulpore is highly favoured in some respects, but the troops are exposed to malarious influences during the last three months of the year, which increase materially the admissions into hospital The officer in medical charge thinks the drainage of the low marshy ground in the vicinity of the station desirable, and suggests that its injurious influences might be lessened if it were planted with *Eucalyptus globulus*, or other suitable trees or shrubs. This suggestion need not involve Government in heavy outlay, and if acted upon there is little doubt that the result would be beneficial.

Pachmarhi is still without a suitable hospital, the sick being accommodated in a wing of one of the barracks. As everything connected with this station is at present of general interest, it may be well to quote here the general conclusions arrived at by Surgeon-Major J. J. Thompson, at present in medical charge. They are to the following effect:—

"A careful perusal of the sanitary and other reports of my predecessors, and a close scrutiny of the medical returns of the station since its occupation by European troops, combined with the medical facts and figures of the past year, place me in a position, notwithstanding my short local experience (having only assumed medical charge on the 8th November, 1875) to express a very favourable opinion on the capabilities and advantage of this beautiful mountain plateau as a temporary residence for either invalid or healthy soldier.

"There can be no doubt that the prevalence of ague, and the general unhealthiness of the station during the earlier years of its occupation, which drew forth such unfavourable reports from the medical officers of the time, arose from local causes which were remediable, and which have since been removed.

"Last year Surgeon-Major N. H. Stewart, in his report for 1874, pointed out how very much more satisfactory the sanitary condition of the station had

become when compared with the records of 1873. This improvement has not ceased to continue, as may be seen by a reference to a preceding section of this report, where the admissions for ague in 1875 were shown to be even less than half the number accorded for 1874. *Benyal.*

"For men whose constitutions have become enervated by service in the plains, or who have suffered from frequent attacks of malarious fever, the climate of Pachmarhi appears to offer many advantages."

Lucknow Circle.—The only points of any sanitary importance mentioned in the report of the Deputy Surgeon-General of this Circle are, that when cholera appears at Lucknow it always breaks out first in the European Infantry Lines, occupied by the 65th Regiment, the causes of which are not explained, and that Naini Tal is particularly exempt from hill diarrhœa. This latter fact is all the more remarkable when coupled with the less creditable one that the lake from which water for all purposes is drawn receives the "washings from the sides of the hills, including the sweepings from private houses, servants' houses, stables, &c., as well as the whole of the dirt from both native bazaars."

The excessive prevalence of venereal diseases among the men of the 85th Regiment is also commented on, but this subject will be noticed towards the end of this report.

Gwalior Circle.—There is nothing of pressing sanitary importance in regard to this Circle which will not be found in the reports of last year. The Superintending Surgeon-Major's special report has not been received, and as Surgeon-Major Irvine has left for England, his experience regarding the requirements of the Circle cannot now be made available in the compilation of this report.

Meerut Circle.—The health of the troops in this Circle has been remarkably good, the mortality having only reached 10·17 per 1,000. There is still, however, room for improvements, as may be inferred from the number of deaths ascribed to enteric fever, malarious fever, dysentery, and liver diseases.

At Meerut many of the barracks in the Cavalry Lines are old, with narrow verandahs and floors, but little raised above the surface of the ground.

The Hospital of the Royal Artillery is old and of inferior construction and arrangement, but kept in excellent order. The European Infantry Hospital is open to similar criticism. Both require additional fireplaces and fires in winter. There is some surface-crowding in the Artillery Lines, and the station generally is insufficiently drained. Works are now in progress to remedy this serious defect.

At Agra, additional hospital accommodation is required. The women's hospital here, as at many other stations, is peculiarly unsuitable for the requirements of that class of patients. A new women's hospital, on the standard plan, should be provided.

The sanitary condition of Delhi is now so satisfactory that little need be said about it. Some slight alteration in the ventilation of the cells, improvement in the gradient of the surface drains, and further improvement in the water supply are said to be desiderata. The beneficial results of the sanitary improvements which have made Delhi what it now is, as contrasted with what it was ten or fifteen years ago, ought to encourage the governments of other provinces to go and do likewise at other stations still in need of such works.

The fine double-storeyed hospital in the fort at this station is a model, well worthy of imitation elsewhere, but the cost will probably preclude its general adoption.

Sirhind Circle.—Here, as elsewhere in the Command, the health of the troops has been good, although the death-rate has been high—18·34 per 1,000. This is attributable to an outbreak of cholera at Umballa and Kasauli, resulting in considerable mortality among the men of the Rifle Brigade at the former and convalescents at the latter station.

There is still a deficiency of barrack accommodation for the infantry regiment at Umballa, but many sanitary improvements have been made during the year, among which may be mentioned new schoolhouses for the Artillery and Rifle Brigade, the provision of fireplaces and ceilings in hospitals, the erection of improved urinaries, the better protection of water tanks, and the roofing and flooring of Right Wing Infantry Hospital now completed.

At Kasauli, the wooden floors in the hospital and in the married men's quarters have been taken up and relaid over a thick layer of concrete, the

Bengal.

interspace being in every instance well ventilated. This is a very great improvement. It was also a work of pressing sanitary necessity, as the floors were rotten and the soil beneath was not only porous but damp and offensive, and highly charged with decaying organic matter.

Other desiderata pointed out in last year's report are still under consideration or in course of adoption.

At Dagshai the re-roofing of the old barracks has been completed, new cook-houses have been built, and the Fitzwygram married barracks are in progress. The re-flooring of the old barracks much needed, and the construction of new latrines are also sanctioned, and will shortly be carried out.

Increased hospital accommodation, new guard-room and cells are still desiderata, which will doubtless be provided for as funds can be made available.

At Subathu, the old barracks are slowly disappearing to make room for new buildings on a better plan. But the new hospital recently built on the top of an isolated hill is showing indications of the rottenness of the rock on which it stands, and there is reason to fear that much, if not the whole of the building, will have to be shored up, if not to a great extent reconstructed.

The works in progress last year at Jutogh have been completed, and the sick and married families are now satisfactorily provided for.

Extensive improvements have also been carried out in the old barracks at Jullundur, and also in the hospitals at that station, and although there is still much to be done there before the cantonment arrangements can be pronounced in every way satisfactory, the troops are on the whole well-housed and cared for.

Lahore Circle.—The health of the troops at Meean Meer during the autumn month of the year caused some anxiety, and in consequence the Officiating Surgeon-General visited this station in February of the present year. The results of his visit were fully stated in a letter addressed to the Quartermaster-General at the time, portions of which are here reproduced. The sickly men of the Royals, selected for transfer to the hills, were sent to Rani-Khet.

Extract from a letter, dated Meean Meer, 19th February, 1876, from the Officiating Surgeon-General, British Forces, to the Quartermaster-General, Army Head Quarters, Calcutta:—

"I have the honour to report, for the consideration of the Right Honourable the Commander-in-Chief, that I inspected the whole of the 2nd Battalion 1st Royals yesterday, and the remainder of the European troops in cantonment this morning.

"The chief sickness among the men and families of the Royals has been caused by malarious fevers. Out of the whole regiment 178 men only have escaped the fever altogether. Of the remainder, about 120 are still suffering from its effects to such an extent as to preclude the hope of early recovery without change, and some 30 more, including 14 boys, are, from various causes, equally in need of transfer to the hills. All the others who have had fever have either shaken it off or are doing so rapidly, and will, I have no doubt, regain their health where they are. I would, therefore, recommend for the favourable consideration of his Excellency that, as I have already telegraphed, accommodation at Hill Sanitaria for 150 men, including eight families, the members of which are suffering from malarious fever, be, if possible, allotted to the Royals, and that the men be moved up as early as is consistent with the general arrangements for the transfer of convalescents to the hill depôts. These men should, if practicable, be sent to stations having good hospital accommodation, as many of them are still in need of careful dieting and medical treatment. They are not, however, suffering to any appreciable extent from organic disease, so that there is good reason for believing that a few months change will restore the greater number, if not the whole of them, to the ranks as effectives.

"Of the other troops at Meean Meer, the Royal Horse Artillery have suffered but little from the fever, and are now in good health. The battery of Field Artillery has suffered somewhat more severely, but they too are rapidly shaking off the effects of the fever. There were but few of the Garrison Battery present, the greater number being absent on detachment duty. But those paraded for inspection seemed to be in very good health.

"I have no suggestions to offer relative to the sanitary surroundings of the troops at Meean Meer. Careful and judicious cultivation of waste grounds, effective surface and subsoil drainage, and the filling up of hollow places, and levelling of all dikes and embankments which interfere with the free escape of stagnant surface water, seem to me the most likely measures to effect a radical improvement in the sanitary condition of the station. Works of this description are now in progress. *Bengal.*

"The cultivation of crops and trees within cantonment limits can only be carried out by the aid of irrigation, to which I believe some are disposed to attribute the prevalence of malarious fevers at Meean Meer. This opinion does not appear to me to be well founded; on the contrary, provided the irrigation is moderate—that is to say, to the extent only required for the healthy growth of the crops—and so regulated as not to obstruct the free circulation of the air through the soil and subsoil, it can do no appreciable injury to the public health, while the presence of healthy vegetation, within moderate limits as to height and luxuriance of growth, will be beneficial.

"I have no reason to question the judiciousness of the drills, exercises, and duty arrangements of the Royals. I allude to the subject here merely to show that it has not escaped my notice, and to add that, in my opinion, a superabundance of unoccupied time is a great misfortune to a corps so circumstanced.

"Frequent short drills and exercises in the open air at seasonable hours, and in suitable clothing, are not only admissible, but desirable, and the more fully the soldier's spare time is occupied in industrial pursuits, and rational amusements and recreations within doors when he cannot be out with safety, the better for his health.

"It is desirable to limit as far as practicable the night duties of the troops during the prevalence of malarious fevers, but the Lieutenant-General Commanding assured me that this point had not escaped his attention"

Peshawar Circle.—Owing probably to the recent arrival of the Deputy Surgeon-General of this Circle, the report for the year 1875 does not discuss fully many points of great sanitary importance, especially in regard to Peshawar, and as this subject was referred for the second time to Deputy Surgeon-General Crawford, when officiating as Surgeon-General, it may not be out of place here to give *in extenso* the letter written by him to the Quartermaster-General on the sanitary aspect of the occupation of Peshawar. This letter should be viewed in continuation of the Report of the Special Committee assembled at Peshawar in the beginning of the year under review.

Copy of Letter, dated Umballa, 11th February, 1876:—

"I have the honour to acknowledge the receipt of your letter No. 1925, dated Camp Delhi, 2nd instant, with its enclosures, herewith returned, and conveying the desire of the Right Honourable the Commander-in-Chief for my opinion on the several points reported upon, as well as on the entire question of the occupation of Peshawar and Cherat.

"2. As the occupation of Cherat is designed by those who advocate that measure to provide a remedy for the unfavourable health conditions of the garrison of Peshawar, it will be more convenient to review the question as it affects the latter station first, and then to see how far the occupation of Cherat meets the requirements of the forces at Peshawar.

"3. I have already had the honour of submitting a report of a special committee, of which I was president, upon the causes of sickness among British troops stationed at Peshawar, for his Excellency's consideration, and as the conclusions of that committee will not, I believe, be questioned by any competent sanitary authority to whom the Peshawar Valley is as well known as it is to the members of the committee, it may suffice for present purposes to recapitulate very briefly those which have reference to the causes of the chief diseases prevalent.

"4. The committee reports at page 8 of the proceedings that—

"'The chief causes of the sickness existing among the British troops at Peshawar are climatic—(*a*) continuous high temperature in summer causing continued fevers; (*b*) malaria in the autumn months giving rise to intermittent fevers.'

"5. These causes may be mitigated, and the severity of the fevers prevalent

Bengal. during the summer months, as well as in the autumn, may be naturally lessened by measures of the description indicated in the report above quoted, but so long as Peshawar continues to be occupied as a military station, so long will the troops, both European and Native, continue to suffer from malarious fever during the autumn months, until, through the lapse of time, the jheels in this valley silt up, and waste plains and marshes are drained, and the whole valley cultivated with due regard to the requirements of public health.

"6. Such being, in my opinion, the true state of the case in regard to Peshawar, it is obvious the troops must continue to suffer from sickness so long as they are required to serve there, and that any remedial measures to be effective must have for their object the removal of the troops, or as many of them as can be spared, beyond these unfavourable influences.

"7. The occupation of Cherat is held by some to be the most effectual, and at the same time the most economical way of meeting this requirement, and I may, I presume, class the writers of the annexed reports among this number, provided the troops at Cherat are comfortably housed in furnished huts of suitable construction.

"8 To cover a spot so limited in extent with huts for so large a force, and houses for the followers, as suggested by Colonel Beresford, and to leave the whole untenanted for six months of the year, would unquestionably lower materially the health conditions of the locality, not only, as the Commander-in-Chief remarks, by protecting the site from the purifying influences of the winter's rains and frost, but also by affording cover for wild animals and vermin, and numberless corners for the lodgment of decaying organic matter, the annual augmentations of which would eventually destroy the reputation of the locality as a sanitarium.

"9. Moreover, the climate of Cherat is very variable, and the elevation is hardly sufficient for a sanitarium to which it is proposed to transfer men suffering from diseases of malarious origin. Changes of temperature are rapid and considerable in degree, reaching in June to 107° in tents, 100° in a permanent building used as the hospital, and 95° in a well-built private hut. The water supply is hard, very limited, and procurable only from a considerable distance.

"10. Brigadier General Wilson, who is a warm advocate for the establishment of a permanent sanitarium at this place, is apparently doubtful as to the benefits to be derived from its occupation in May and June. He writes:—'Four years experience enables me to say that usually it is not until the month of July, after the monsoon has well set in below, that the full advantages of the climate are experienced.'

"11. Surgeon Major Meane, the officer in medical charge, appears to be much of the same opinion. When urging the necessity of providing hut accommodation for the troops, he says:—'The exposure to heat in the first two months of the season being so great, the advantage over the plains is but very little marked."

"12. Unfortunately the excepted months are those in which the lives of the soldiers are in most danger at Peshawar. Malarious fevers produce present inefficiency and eventual loss from invaliding, but heat-apoplexy kills with distressing celerity and certainty. If Cherat be not suitable as a sanitarium during these months without large outlays in erecting permanent barracks, half its alleged value to the Peshawar garrison is at once discounted.

"13. These and other reasons, both sanitary and general, such as the impossibility of removing during the summer, without great risk to life, the sick in hospital and the women and children back to Peshawar, and the equally perplexing alternative of protecting them at Cherat in the midst of hostile tribes, should any serious *emeute* occur in the valley—lead me to the conviction that Cherat is only suitable as a temporary and occasional retreat for the fever-stricken members of the Peshawar garrison, and that for this purpose no sort of shelter is more appropriate or more economical than tents well choppered in, as is customary under similar circumstances in other parts of India, so as to protect the inmates from extreme noon-day heat, as well as from sudden alternations of temperature at other times.

"14. But were Cherat all that could be desired as to climate, local surroundings, space, water supply, &c., and were buildings erected of the best

possible description, and ample as to extent of accommodation for all the men that can be spared from Peshawar after the most necessary duties have been provided for, it would still fail to meet the real requirements of that garrison so long as the interchange of men on the principle now adopted is followed. *Bengal.*

"15. In the spring, and while the troops in the valley are still healthy, as many as can be spared are sent away to Cherat, not, as I understand, to regain their health (for that is still good, invalids and sickly men having been previously sent home or transferred to Murree), but to retain it, in order that, later on, when those left behind sicken and are no longer able to perform their duties, they may take their place; and having contracted the fever, which spares few, if any, who are exposed to its causes, become fit subjects for change, or possibly for invaliding.

"16. It is this unvarying routine, and the inevitable exposure of all in turn to malarious influences in the valley, for which a remedy is needed, and, unless the Commander-in-Chief can spare half the garrison of Peshawar for permanent localization at Cherat, and the Government of India will erect there a suitable cantonment for their accommodation, and treat them as a reserve, to be called to the valley only in case of military or political necessity, the station should be, in my humble opinion, looked upon only as a favourite camp ground to which a portion of the forces in the valley can at any time move in case of unusual sickness or other need.

"17. In writing this, I have no desire to question the greatness of the boon conferred on the troops by the temporary occupation of Cherat as a sanatarium, or to throw any doubt upon the fact that men suffering from the debilitating fevers of the valley recover more quickly and more perfectly at Cherat than they would do if left at Peshawar or Nowshera; on the contrary, I agree with the Sanitary Commissioner with the Government of India, that the good effect of the change on sickly men from Peshawar and Nowshera 'is very decided, and there can be no question that this hill has proved of great benefit to the health of the troops in the valley.'

"18. It must not be forgotten, however, in estimating the value of the figures given in paragraph 20 of Sanitary Report for 1874, from which the above quotation is copied, that Peshawar suffered severely from cholera during 1872, which accounts for its high death-rate for that year, while Nowshera and Cherat escaped, and also that the troops were withdrawn from Cherat in 1874 before the sickly season at Peshawar had passed over. These conditions have been to some extent reversed in 1875, and although the returns for that year are not yet complete, I am inclined to think the result, as regards Cherat, will be less satisfactory than the experience of 1874 seems to foreshow.

"19. Political and military considerations are points upon which I do not feel competent to enter, although they must mainly determine the sanitary policy to be pursued in regard to the military occupation of the Peshawar valley. But assuming for the moment the best policy is in this instance in harmony with the highest sanitary interests of the troops, the latter will in my opinion be best provided for by reducing the troops at Peshawar to the smallest possible number consistent with safety, and by placing all reserves at some convenient point on the other side of the Indus.

"I have already written so fully on the barrack accommodation at, and sanitary requirements of, Peshawar, that I do not think it necessary to add any further remarks on those points here."

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STATISTICAL REPORT.

The average annual strength of the non-commissioned officers and men in the Command was 11,132, the admissions into hospital were 12,224, the deaths including those of invalids on the voyage, or after arrival in England, were 185, the average number of constantly sick was 561. The rates given by these numbers are, for admissions 1098·1, for deaths 16·62, and for constantly sick 50·40 per 1,000 of the strength respectively. The admission-rate is 23·9, and the death-rate is ·79 per 1,000 of the strength higher than in 1875; the rate of constantly sick is 5·13 per 1,000 men lower.

The admissions and deaths in the different classes and orders of diseases, are shown in the following Table :—

Orders.	Diseases.	Strength, 11,132.			Ratio per 1,000 of Mean Strength.			
					1876.		1869–75.	
		Admitted.	Deaths.		Admitted.	Died.	Admitted.	Died.
			In the Command.	Of Invalids.				
	I. *General Diseases.*							
1	Febrile Group ..	2,254	46	..	202·5	4·13	235·8	3·64
2	Constitutional „ ..	1,507	12	4	135·4	1·44	159·2	2·07
	II. *Local Diseases.* Diseases of the—							
1	Nervous System ..	238	24	..	21·4	2·15	19·7	1·94
2	Eye	171	..	..	15·4	..	19·8	..
3	Ear	104	..	..	9·3	..	9·4	..
4	Nose	6	..	..	·5	..	·4	..
5	Circulatory System ..	189	14	1	17·0	1·35	18·9	2·00
6	Absorbent „ ..	235	..	..	21·1	..	25·3	..
8	Respiratory „ ..	454	3	..	40·8	·27	43·5	·56
9	Digestive „ ..	3,537	50	5	317·7	4·94	340·4	7·16
10	Urinary „ ..	985	1	1	88·5	·18	80·5	·17
11	Generative „ ..	155	..	..	13·9	..	15·3	..
12	Organs of Locomotion..	16	..	..	1·4	..	5·2	·04
13	Cellular Tissue	189	1	..	17·0	·09	17·1	·01
14	Cutaneous System ..	729	..	..	65·5	..	33·8	..
	III. *Conditions, &c.*							
	Debility..	356	..	..	32·0	..	36·7	·06
	IV. *Poisons* ..	67	4	..	6·0	·36	8·9	·50
	V. *Injuries.*							
2	Accidental	1,007	14	..	90·5	1·26	103·5	1·17
3	Homicidal	1	..	..	·1	..	} ·3	{ ·05
4	Self-inflicted	5	5	..	·4	·45		{ ·51
6	Judicial..	..	..	..	..	..	..	·04
	VI. *Surgical Operations*	3	..	..	·3	..	·5	..
	Cause unknown ..	..	..	..	..	..	..	·01
	No appreciable disease..	16	..	..	1·4	..	1·2	..
	Total	12,224	174	11	1098·1	16·62	1225·4	19·93
	Average of 10 years, 1866–75	..	..	..	1284·3	20·86	..	..

General Diseases.—The rate of prevalence of diseases in this class is 13·8 per 1,000 men lower than in the preceding year; the whole of the reduction is in the *constitutional group* of the class, in the *febrile group* there is a small increase. The rate of mortality for the whole class is 1·75 per 1,000 men in excess of the rate for 1875, but whilst the increase for the febrile group amounts to 2·71 per 1,000, there is a reduction of ·96 per 1,000 in that of the *constitutional group* of diseases.

The admissions and deaths from the principal diseases in this class, are shown in the following Table:—

General Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength.			
			1876.		1869–75.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	13	1	1·2	·10	1·3	·09
Continued „	1,557	25	139·9	2·24	118·2	1·43
Paroxysmal „	619	1	55·6	·09	109·6	·43
Cholera	34	17	3·1	1·52	2·9	1·57
Influenza	18	..	1·6	..	1·4	..
Erysipelas	6	..	·5	..	1·9	·07
Other diseases of this Group.	7	2	·6	·18	·5	·05
Total	2,254	46	202·5	4·13	235·8	3·64
Constitutional—						
Rheumatism	357	..	32·1	..	40·4	·01
Syphilis	993	1	89·2	·09	100·1	·22
Scrofula, Phthisis, &c. ..	111	14	9·9	1·26	12·6	1·63
Scurvy and Purpura ..	1	..	·1	..	·5	·01
Anæmia	32	..	2·9	..	4·7	..
Other diseases of this Group.	13	1	1·2	·09	·9	·20
Total	1,507	16	135·4	1·44	159·2	2·07

Eruptive Fevers, are in a fractionally lower rate of prevalence than in the preceding year; 6 of the admissions were for dengue.

Continued Fevers.—The rate of admissions exceeds that of the preceding year by 20·8 per 1,000 men, and the death-rate is 1·44 per 1,000 higher.

Paroxysmal Fevers.—The rate of admissions is 19·1 per 1,000 men lower; the death-rate is lower than in 1875.

Cholera.—Compared with the preceding year there is an increase of 2·5 per 1,000 men in the admissions for this disease, which was epidemic in the civil population.

Rheumatism.—There is a small increase in the rate of prevalence on that of 1875.

Syphilis.—The rate of prevalence is lower than that of the preceding year by 19· per 1,000 men.

Scrofula, Phthisis, &c.—Diseases in this group are in a slightly lower rate of prevalence than in the preceding year.

Anæmia.—The rate of prevalence is fractionally higher than in 1875.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions is 8·1 per 1,000 men, or more than a third higher than that of 1875, and the rate of deaths is 1·08 per 1,000, or one-half higher; the last result is mainly due to the greater fatality of sunstroke in the present year.

Diseases of the Eye.—The rate of admissions is 1·4 per 1,000 men higher than that of 1875.

Diseases of the Circulatory System.—The rate of admissions is 3·9 per 1,000 men, and that of deaths is ·70 per 1,000 lower than in 1875.

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Diseases of the Respiratory System.—The rate of admissions is 4·1 per 1,000 men higher, whilst that of deaths from diseases in this order is ·26 per 1,000 lower, than in the preceding year.

Diseases of the Digestive System.—The rate of prevalence is 22·9 per 1,000 men higher than in the preceding year, whilst the rate of mortality is ·40 per 1,000 lower; tonsillitis, and dyspepsia were the diseases of a non-fatal character which were of greater comparative frequency in the present year; dysentery and hepatitis, caused fewer admissions than in 1875.

Diseases of the Urinary System.—Compared with 1875, this order shows a trifling reduction in the rate of admissions.

Conditions, &c.—*Debility.*—The rate of admissions exceeds that of 1875 by 5·9 per 1,000 men.

Poisons.—The rate of admissions differs only fractionally from that of 1875.

Injuries.—*Accidental.*—The rate of admissions is fractionally higher than that of the preceding year. The causes of death were drowning in 5 instances, fracture in 7, dislocation in 1, and injury of the brain in 1.

Self-inflicted Injuries.—The mode of death was by gunshot in 4 instances, and by cut throat in 1.

The admissions and deaths at each of the principal stations in the Command are shown in the following Table, which is taken from the report of the Principal Medical Officer:—

Stations.		Average Annual Strength.	Average Daily Sick.	Admitted.	Died.	Invalided.	Ratio per 1,000 of Strength.				Average of 9 years.	
							Daily Sick.	Admitted.	Died.	Invalided.	Admitted.	Died.
Presidency.	Fort St. George	636	31	718	9	27	48·74	1128·9	14·15	42·45	1407·2	20·88
	Palaveram ...	21	...	5	...	...	...	238·1	...	...	505·1	13·18
	St. Thomas's Mt.	341	20	468	7	30	58·65	1372·4	20·53	87·98	1281·9	22·58
	Trichinopoly ...	267	20	284	9	22	74·90	1063·7	33·71	82·40	1358·1	16·65
	Bellary	898	53	893	6	37	59·02	994·4	6·68	41·20	1135·5	9·46
	Total ...	2,163	124	2,368	31	116	57·32	1094·8	14·33	53·62	...	...
Mysore.	Bangalore ...	1,641	68	1,347	20	59	41·43	820·8	12·18	35·95	1233·8	12·23
	Cannanore ...	696	28	574	5	28	40·22	824·7	7·18	40·22	1198·1	16·76
	Calicut	96	2	61	3	1	20·83	635·4	31·25	10·41	1065·6	15·29
	Malliaporum ...	93	2	69	1	5	21·50	741·9	10·75	53·76	972·4	15·47
	Total ...	2,526	100	2,051	29	93	39·58	811·9	11·48	36·81	...	...
Hyderabad.	Secunderabad ...	2,327	117	2,602	34	77	50·27	1118·2	14·61	33·09	1279·7	26·86
	Kamptee ...	909	56	1,390	21	40	61·61	1529·2	23·10	44·01	1733·1	16·37
	Seetabuldee ...	50	2	122	1	...	40·00	2440·0	20·00	...	1519·2	9·53
	Total ...	3,286	175	4,114	56	117	53·26	1252·0	17·04	35·61	...	...
Burmah.	Rangoon ...	742	36	750	11	39	48·52	1010·8	14·82	52·56	1292·3	12·49
	Thayetmyo ...	674	36	698	4	27	53·41	1035·6	5·93	40·06	1244·8	22·51
	Tonghoo ...	457	25	632	9	36	54·70	1382·9	19·69	78·77	962·0	15·80
	Port Blair ...	134	3	73	1	1	22·39	544·8	7·46	7·46	922·4	11·02
	Total ...	2,007	100	2,153	25	103	49·82	1072·7	12·45	51·32	...	...
Depôts.	Poonamallee ...	150	45	499	4	8	300·00	3326·7	26·66	53·33	2804·5	62·02
	Wellington ...	447	40	877	16	35	89·48	1962·0	35·79	78·30	1259·5	13·53
	Ramandroog ...	52	3	43	...	1	57·69	923·1	...	19·23	1312·0	13·26
	Total ...	649	88	1,424	20	44	135·59	2194·1	30·81	67·80	...	...
On the March		192	11	152	13	...	57·29	791·7	67·71	...	542·6	25·13

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The admissions and deaths in each class and order of diseases, in each of the Military Divisions, are shown in the following Tables, taken from the Returns of the Principal Medical Officer :—

Order.	Divisions ...	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.		Annual Ratio per 1,000 of Strength.											
														Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	Average Strength ...	2,163		2,526		3,286		2,007		649		192													
	1. *General Diseases.*																								
1	Febrile Group ...	298	8	372	3	1,024	22	237	1	308	8	10	4	137·8	3·70	147·3	1·19	311·6	6·69	118·1	·50	474·7	12·32	52·1	20·83
2	Constitutional ,, ...	326	2	243	2	458	...	278	1	167	3	36	2	150·7	·93	96·2	·79	139·4	...	138·5	·50	257·3	4·62	187·5	10·41
	II. *Local Diseases.*																								
	Diseases of the—																								
1	Nervous System ...	30	4	37	1	91	13	47	4	32	2	2	...	13·9	1·85	14·6	·39	27·7	3·95	23·4	1·99	49·3	3·08	10·4	...
2	Eye	21	...	38	...	66	...	35	...	12	...	1	...	3·7	...	15·0	...	20·1	...	17·4	...	18·5	...	5·2	...
3	Ear	14	...	28	...	51	...	7	...	5	...	...	...	6·4	...	11·1	...	15·5	...	3·5	...	7·7	...	...	...
4	Nose	1	...	1	...	1	...	...	...	3	...	...	...	·5	...	·4	...	·3	...	...	...	4·6	...	...	...
5	Circulatory System ...	40	2	14	5	42	2	35	1	57	1	3	3	18·5	·93	5·5	1·97	12·8	·61	17·4	·50	87·8	1·54	15·6	15·62
6	Absorbent ,, ...	106	...	31	...	47	...	26	...	22	...	1	...	49·0	...	12·3	...	14·3	...	13·0	...	33·9	...	5·2	...
7	Respiratory ,, ...	89	2	46	...	151	3	72	...	97	...	5	...	40·7	·93	18·2	...	46·0	·92	35·9	...	149·4	...	26·0	...
8	Digestive ,, ...	647	7	625	14	978	12	813	11	445	3	48	3	299·1	3·23	247·4	5·54	297·6	3·65	405·1	5·48	685·7	4·62	250·0	15·62
9	Urinary ,, ...	255	...	125	...	440	...	110	...	43	1	11	...	117·9	...	49·4	...	133·9	...	54·8	...	66·2	1·54	57·3	...
10	Generative ,, ...	45	...	27	...	49	...	22	...	9	...	3	...	20·8	...	10·7	...	14·9	...	11·0	...	13·9	...	15·6	...
11	Organs of Locomotion	2	...	3	...	3	...	1	...	6	...	...	...	·9	...	2·4	...	...	...	·5	...	9·2	...	...	...
12	Cellular Tissue ...	48	1	30	...	71	...	24	...	9	...	3	...	22·2	·46	11·9	...	21·6	...	11·9	...	13·9	...	15·6	...
13	Cutaneous System ...	178	...	159	...	189	...	154	...	40	...	10	...	82·3	...	62·9	...	57·5	...	76·7	...	61·6	...	52·1	...
	III. *Conditions, &c.*																								
	Debility	54	...	35	...	90	...	84	...	91	...	7	...	25·0	...	13·9	...	27·4	...	41·9	...	140·2	...	36·5	...
	IV. *Poisons* ,, ...	12	1	11	1	19	...	15	1	8	...	1	1	5·5	·46	4·4	·39	5·8	...	7·5	·50	12·3	...	5·2	5·20
	V. *Injuries.*																								
2	Accidental	200	3	219	3	343	2	180	4	66	2	11	...	92·4	1·38	86·7	1·19	104·4	·61	89·7	1·99	101·7	3·08	57·3	...
3	Homicidal	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	·5	...	...	...	...	...
4	Self-inflicted	1	1	1	...	...	2	3	2	...	...	...	...	·5	·46	·4	...	...	·61	1·5	·99	...	...	...	...
	VI. *Surgical Operations*	1	...	...	...	...	...	...	...	2	...	...	...	·5	...	...	...	...	...	...	...	3·1	...	...	...
	No appreciable disease	1	...	3	...	1	...	9	...	2	...	...	...	·5	...	1·3	...	·3	...	4·5	...	3·1	...	...	...
	Total	2,368	31	2,051	29	4,114	56	2,153	25	1,424	20	152	13	1094·8	14·33	812·0	11·46	1252·0	17·04	1,072·8	12·45	2194·1	30·80	791·6	67·68

Divisions	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.		Ratio per 1,000 of the Strength										On the March.	
Average Strength ...	2,163		2,526		3,286		2,007		649		192		Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.			
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																								
Eruptive Fevers ...	...	...	2	...	4	1	7	...	...	...	...	2	...	...	·8	...	1·2	·30	3·5	...	...	...	...	10·41
Continued " ...	195	1	289	3	660	15	180	1	233	3	2	...	90·2	·46	114·4	1·19	200·8	4·57	89·7	·49	359·2	4·62	10·4	...
Paroxysmal " ...	87	...	72	...	338	1	47	...	59	...	7	...	40·2	...	28·5	...	102·9	·30	23·4	...	90·9	7·70	36·5	10·41
Cholera " ...	12	7	...	...	7	3	...	...	14	5	1	2	5·5	3·24	...	...	2·1	·91	...	...	21·6	...	5·2	...
Influenza " ...	4	...	2	...	12	...	...	...	1	...	...	...	1·9	...	·8	...	3·7	...	...	...	1·5	...	...	...
Erysipelas ...	...	...	3	...	...	...	3	...	1	...	...	...	...	...	1·2	...	...	...	1·5	...	1·5	...	...	...
Other diseases of this Group... "	...	...	4	...	3	2	...	...	1	...	...	...	...	...	1·6	...	·9	·61	...	...	1·5	...	...	...
Total	298	8	372	3	1,024	22	237	1	308	8	10	4	137·8	3·70	147·3	1·19	311·6	6·69	118·1	·49	474·7	12·32	32·1	20·82
Constitutional—																								
Rheumatism	61	...	91	...	89	...	69	...	44	...	3	...	28·2	...	36·1	...	27·1	...	34·4	...	67·8	...	15·6	...
Syphilis	242	1	126	...	337	...	132	...	88	...	25	...	111·9	·46	49·8	...	102·6	...	90·6	...	135·6	...	130·2	10·41
Scrofula and Phthisis ...	7	...	22	2	23	...	17	1	28	3	8	2	3·2	...	8·7	·79	7·0	...	8·5	·49	43·1	4·62	41·7	...
Scurvy and Purpura ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1·5	...	...	...
Anæmia	14	...	2	...	6	...	6	...	4	...	...	...	6·5	...	·8	...	1·8	...	3·0	...	6·2	...	...	...
Other diseases of this Group... ...	2	1	2	...	3	...	4	...	2	...	...	...	·9	·46	·8	...	·9	...	2·0	...	3·1	...	...	...
Total	326	2	243	2	458	...	278	1	167	3	36	2	150·7	·92	96·2	·79	139·4	...	138·5	·49	257·3	4·62	187·5	10·41

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General Diseases.—The rate of prevalence of diseases of this class is lower than in 1875, in the Presidency Division by 182·7 per 1,000 men, and in the Mysore by 22·2, whilst it is higher in the Hyderabad by 17·1, and in the Burmah by 17·1 per 1,000. In the Presidency, both groups of diseases contributed to the reduction in the rate for the whole class, the rate for the *febrile group* is little more than the half of that of the preceding year; in the Mysore, the reduction is altogether in diseases of the *constitutional group*. In the Hyderabad, the rate of the first group is higher, that of the second is lower, whilst in the Burmah Division, this distribution of the increased rate is reversed. The rate of mortality of the class is higher in every Division except the Burmah, for which it is only a third of that of 1875.

Eruptive Fevers.—The only noticeable feature in connexion with fevers of this nature is the re-appearance of dengue, a disease apparently extinct in the Command in the preceding year; the admissions for it were 6, and they all occurred in the Burmah Division, and at the Thayetmyo station there.

Continued Fevers.—There is an increased rate of prevalence of fevers of this kind for every Division except the Presidency, which shows a decrease of 154·2 per 1,000 men; the rate of mortality is higher for every Division except the Burmah.

Enteric Fever.—Taking all Divisions together, the rate of prevalence of this disease is nearly twice as great as that of the preceding year; as in 1875, its chief incidence was in one, the Hyderabad Division, and in it at Secunderabad, where all the corps serving at the station were attacked, though in different proportions, the two Infantry regiments, the 2nd Battalion 16th (which was in its first year of service in the Command) and the 44th (in its fifth year of service) suffered in a nearly equal degree, in each the features were those of a "house epidemic," but one of no great extent, the first regiment having but 17, the last but 18 admissions. The Cavalry, and the Royal Artillery, suffered in a much less degree. Of the admissions other than those at Secunderabad, the Depôt at Wellington, contributed more than half; a sporadic case of the disease occurred at each of four other stations.

The stations at which there were admissions for enteric fever, and the quarters of the year when they took place, are shown in the following Table :—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency	St. Thomas's Mt.	..	..	..	..	1	1	..	..	1	1
	Bellary	..	..	..	..	1	..	..	..	1	..
Hyderabad	Secunderabad	6	2	2	1	26	8	8	3	42	14
Burmah	Thayetmyo	..	..	..	..	1	1	..	..	1	1
Depôts	Wellington	1	..	2	2	2	1	..	..	5	3
Troops on the March		1	1	..	..	..	..	..	..	1	1
Total in the Command		8	3	4	3	31	11	8	3	51	20

The ages, and periods of residence in India of those attacked by enteric fever, are shown in the following Tables, which are taken from the report of the Principal Medical Officer :— *Madras.*

Ages.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
19 to 20	2	..
20 to 21	4	2
21 to 22	5	2
22 to 23	4	1
23 to 24	7	2
24 to 25	9	5
25 to 26	8	4
26 to 27	4	3
27 to 28	3	..
29 to 30	1	..
33 to 34	1	1
37 to 38	2	..
42 to 43	1	..
Total	51	20

Service in India.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
Under 1 year	23	10
1 to 2 years	2	1
2 to 3 „	4	2
3 to 4 „	5	2
4 to 5 „	13	2
5 to 6 „	2	2
6 to 7 „	1	1
9 to 10 „	1	..
Total	51	20

Paroxysmal Fevers.—For every Division except the Presidency there is a decrease in the rate of prevalence of diseases of this nature on that of the preceding year, and in each instance the reduction is considerable; Depôts and Troops on the March, each show an increase.

Cholera, appeared in a sporadic form only in the Presidency and in the Hyderabad Divisions, the troops in the Mysore, and the Burmah Division remaining free from the disease. The greatest actual, as well as proportional prevalence, was at Depôts, but this was owing to the development there of cholera in men who had acquired the disease when on the march from Bombay to Wellington Depôt, and who were taken ill after arrival at their destination; in this outbreak 12 men of the 33rd Foot (in a strength of 40) were attacked.

Rheumatism.—Compared with the results for the preceding year, all the Divisions show lower rates of prevalence except Burmah, the reduction in the Divisions however is to some extent counterbalanced by an increase for Depôts, and for Troops on the March.

Syphilis.—Compared with 1875, there is a decrease in the rate of admissions for this disease of 40·6 per 1,000 men in the Presidency, of 29·5 in the Mysore, and of 17·8 in the Hyderabad Divisions; for the Burmah Division there is an increase of 21·9.

Scrofula and Phthisis.—The prevalence of diseases in this group is lower for every Division than in the preceding year, except Mysore, for which there is a small increase.

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LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions for the Presidency, and that for the Mysore Division, differs only fractionally from the corresponding rate of the preceding year, but for the Hyderabad, there is an increase of 11·5, and for the Burmah an increase of 17·6 per 1,000 men; the rate of mortality of the Hyderabad Division is more than threefold higher than in 1875, and that of Burmah is fourfold higher.

Diseases of the Eye.—The rate of admissions is lower for the Presidency and for the Mysore Division, but is considerably higher for each of the remaining ones.

Diseases of the Circulatory System.—Compared with the preceding year, the rate of admissions differs only fractionally in the Presidency, and in the Burmah Divisions, and it is lower for the Mysore, and for the Hyderabad; in the instance of Mysore, the decrease amounts to 28·1 per 1,000 men, or more than sixfold; this result is due to the decreased prevalence of palpitation.

Diseases of the Respiratory System.—Compared with 1875, there is an increased rate of admissions for the Presidency, a lower rate for each of the others.

Diseases of the Digestive System.—The rate of admissions is higher than in the preceding year for the Presidency by 69· per 1,000 men, and for the Burmah by 69·4, for the Mysore Division, it is lower by 36·9, for the Hyderabad by 35·3, for Depôts there is a large increase, 280·3 per 1,000 men. The rate of mortality is fractionally lower for the Presidency, and for the Hyderabad is lower by 3·23, or one-half; the Mysore and the Burmah Divisions, each show an increase, the first amounting to 2·31 and the last to 2·12; for Depôts there is a decrease of 6·19 per 1,000 men.

The relative prevalence of certain important diseases of this order, in each Division of the Command, is shown in the following Table :—

Divisions.	Ratio per 1,000 of the Strength.											
	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		Troops on the March.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died	Admitted.	Died.
Dysentery	46·70	·92	51·1	·39	54·8	1·22	103·6	3·48	98·6	1·54	93·8	5·21
Diarrhœa	46·70	...	43·2	...	58·4	...	71·2	·50	15·0	...	72·9	...
Hepatitis, including abscess of liver ...	78·1	1·85	37·2	4·32	49·3	1·83	64·8	...	229·6	3·09	52·1	10·42

The relation between the prevalence and mortality of the diseases specified, and season, is shown in the following Table :—

	Hepatitis, including Abscess of the Liver.				Dysentery.				Diarrhœa.				Total.			
	Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Annual Ratio per 1,000 of Strength.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Ist Quarter	147	6	14·0	·57	129	8	12·3	·76	95	1	9·1	·10	371	15	35·4	1·43
IInd „	162	6	14·7	·54	154	2	13·9	·18	216	..	19·6	..	532	8	48·2	·72
IIIrd „	195	9	17·8	·82	220	6	20·1	·55	221	..	20·2	..	636	15	58·1	1·37
IVth „	200	6	18·5	·56	197	8	18·2	·74	124	1	11·5	·09	521	15	48·2	1·39

Diseases of the Urinary System.—Compared with the preceding year, the rate of admissions is higher for the Presidency, and for the Hyderabad Divisions, but is lower for the others.

Poisons.—The rate of admissions is higher in all the Divisions, except the Burmah, the rate of which is only one-half of that of 1875; two of the admissions were due to the effects of carbolic acid, both illnesses were fatal. Two admissions were on account of poisoning by a vegetable irritant. One admission was due to the bite of a cobra, the soldier recovered; the cobra was one belonging to jugglers, the poison fangs of which had been extracted before the snake-charming performances were exhibited.

INJURIES.—*Accidental.*—The rate of admissions is higher than in the preceding year for the Presidency, but is lower for each of the other Divisions.

The principal results of sickness, for each Corps serving in the Command, are shown in the following Table:—

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Corps.	Years of Service in this Command.	Average Annual Strength.	Admitted into Hospital.	Deaths.		Invalided.	Average Number of Daily Sick.	Ratio per 1,000 of Strength of				Average Sick time to each Soldier.	Average duration of each case of Sickness.	Stations.
				In the Command.	Of Invalids.			Admissions into Hospital.	Deaths.	Invalids.	Daily Sick.			
												Days.	Days.	
CAVALRY.	..	395	392	3	..	14	21·68	992·4	7·59	35·44	54·81	20·03	20·19	On the March, 4nth.; Bangalore, $10\frac{3}{4}$.
*14th Hussars ..	..													
†16th Lancers ..	over 10	419	352	4	1	15	13·20	840·1	11·93	35·80	31·51	11·50	13·69	Secunderabad, 11.
Total Cavalry..	..	814	744	7	1	29	34·88	914·0	9·83	35·62	42·85	15·64	17·11	
ROYAL ARTILLERY.														
Hd.-Qrs. and C Batt. C Brig. R.H.A.	..	167	203	5	..	9	11·43	1213·2	29·94	56·60	68·44	24·98	20·52	Bangalore, 12.
B Batt. ,,	..	156	253	4	..	11	12·58	1621·8	25·64	70·51	80·64	29·43	18·15	Secunderabad, 12.
Hd.-Qrs. and 4th Batt. 5th Brig. R.A.	2	106	126	4	..	4	5·68	1188·7	37·74	37·74	53·60	19·56	16·54	St. Thomas's Mount, 12.
1st Batt. ,,	..	89	151	1	..	9	8·56	1696·6	11·23	101·12	96·18	35·16	20·69	Cannore, $1\frac{1}{4}$; Tonghoo, $9\frac{1}{4}$; on the March, $1\frac{1}{4}$.
2nd ,, ,,	..	97	107	1	..	6	6·19	1103·1	10·31	61·85	63·81	23·29	21·12	Secunderabad, 12.
5th ,, ,,	..	78	70	1	..	2	3·43	897·4	12·82	25·64	43·97	16·05	17·88	Rangoon, 12.
6th ,, ,,	..	84	76	2	..	2	4·48	904·7	23·81	23·81	53·33	19·47	21·52	Tonghoo, 1.; Cannore, $9\frac{3}{4}$; on the March, $1\frac{1}{4}$.
7th ,, ,,	..	91	158	5	..	3	6·85	1736·3	54·94	32·97	75·28	27·47	15·82	Tonghoo, 12.
Invalid of the Brigade	..	..	..	..	1	..	..	..	..	..	..	..	..	
7th Batt. 6th Brig. R.A.	..	88	98	1	..	5	6·01	1113·6	11·36	56·82	68·30	24·93	22·38	Rangoon, 12.
A Batt. 9th Brig. R.A.	..	151	166	1	..	2	9·23	1099·3	6·62	13·24	61·13	22·31	20·29	Secunderabad, 12.
C ,, ,, ,,	..	149	138	1	..	6	8·17	926·2	6·71	40·26	54·83	20·01	21·61	Bangalore, 12.

D „ „ „ „ ..	..	157	183	3	..	17	15·45	1165·6	50·95	108·28	98·41	35·92	30·82	Trichinopoly, 12.
G „ „ „ „ ..	..	160	159	1	..	4	7·80	993·8	6·25	25·00	48·75	17·80	17·91	Thayetmyo, 12.
Hd.-Qrs. and F Batt. 20th Brig. R.A.	..	152	168	1	..	7	7·66	1105·3	6·58	46·05	50·40	18·39	16·64	Secunderabad, 12.
A Batt. 20th Brig. R.A. ..	..	160	174	3	..	5	7·40	1087·5	18·75	31·25	46·25	16·88	15·52	St. Thomas's Mount, 12.
B „ „ „ ..	..	157	130	2	1	5	4·56	828·0	19·11	31·85	29·05	10·60	12·80	Bellary, 12.
C „ „ „ ..	..	151	246	3	..	18	11·73	1629·1	19·87	119·20	77·68	28·35	17·40	St. Thomas's Mount, 12.
D „ „ „ ..	..	149	113	1	..	3	6·54	758·4	6·71	20·13	43·90	16·02	21·21	Bangalore, 12.
E „ „ „ ..	..	141	289	4	..	6	9·95	2049·6	28·37	42·55	70·57	25·77	12·57	Kamptee, 11½; on the March, ½.
G „ „ „ ..	..	156	295	4	..	8	11·38	1891·0	25·64	51·28	72·95	26·63	14·08	„ „ „ „
Total Royal Artillery..	..	2,639	3,303	53	2	132	165·08	1251·6	20·84	50·02	62·55	22·83	18·24	
Royal Engineers	..	28	1	..	..	..	..	..	..	..	..	..	..	
INFANTRY.														
‡2nd Battalion, 16th Foot	0	742	720	17	..	16	37·76	970·4	22·91	21·56	50·89	18·58	19·14	On the March, ½; Secunderabad, 9½.
1st Battalion, 21st Foot ..	7	814	789	13	..	31	38·50	969·3	15·97	38·08	47·30	17·26	17·81	Rangoon, 12; det. at Port Blair.
33rd Foot	1	789	1,155	22	..	21	48·08	1463·9	27·88	26·61	60·94	22·24	15·19	Kamptee, 12; det. at Seetabuldee.
43rd „	4	877	927	4	1	49	55·01	1057·0	5·70	55·87	62·73	22·89	21·66	Bellary, 12.
44th „	5	820	1,169	9	1	45	49·70	1425·6	12·20	54·88	60·61	22·12	15·52	Secunderabad.
45th „	4	857	607	10	1	21	27·20	708·3	12·84	24·50	31·74	11·59	16·35	Bangalore, 12; det. at Trichinopoly.
48th „	4	867	712	10	..	28	36·62	821·2	11·53	32·29	42·24	15·42	18·77	Cananore, 12; dets. at Calicut and at Malliaporam.
67th „	4	901	923	15	2	37	33·80	1024·4	18·87	41·06	37·51	13·69	13·37	Thayetmyo, 2; on the March, ¼; Madras, 9¾; det. at Tonghoo.
§76th „	over 10	130	98	1	2	..	4·04	754·0	23·08	..	31·08	13·34	15·00	Secunderabad, 2; on the March, ½.
Hd.-Qrs. 89th Foot	5	558	625	4	1	46	32·09	1120·1	8·96	82·44	62·26	22·73	18·05	Madras, 1¼; on the March, ¾; Thayetmyo, 10.
Wing „		291	444	8	..	23	19·77	1525·8	27·50	79·04				Tonghoo, 10¼.
Details „ ..	..	5	7	1	..	..	..	..	..	..	..	..	..	
Total Infantry	..	7,651	8,176	114	8	317	382·57	1068·6	15·94	41·43	50·00	18·25	17·08	

* Arrived 8th Feb. † Left on 4th Jan. ‡ Arrived 10th March. § Left 8th March.

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The relation between length of service in the Command, and the results of sickness in each Corps, are shown in the following Table :—

Corps.	Year of Service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died in and out of the Command.	Invalided.	Average Number of Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each case of Sickness.
							Admissions into Hospital.	Died.	Invalided.	Constantly Sick.		
14th Hussars ... ... 2nd Bat. 16th Foot ...	Under 1 year	1,137	1,112	20	30	59·44	978·0	17·59	26·39	52·28	19·08	19·57
33rd Foot	1	789	1,155	22	21	48·08	1463·9	27·88	26·61	60·94	22·23	15·19
C Brig. Royal Horse Artillery	3	323	456	9	20	24·01	1411·8	27·86	61·92	74·34	27·13	19·22
43rd Foot ... ... 45th ,, ... 48th ,, ... 67th ,, ...	4	3,502	3,169	43	135	152·63	904·9	12·25	38·55	43·58	15·62	17·26
44th Foot ... ... 89th ,, ...	5	1,669	2,238	23	114	101·56	1340·9	13·74	68·30	60·85	22·21	16·56
7th Batt. 6th Brig. Royal Artillery ... 9th Brig. Royal Artillery ... ... 1st Batt. 21st Foot ...	7	1,519	1,533	25	65	85·16	1009·2	16·46	42·79	56·06	20·46	20·27
5th Brig. Rl. Artillery	9	545	688	15	26	35·19	1262·4	27·52	47·71	64·48	23·57	18·67
16th Lancers ... 20th Brigade Royal Artillery ... ... 76th Foot	over 10 years	1,615	1,865	27	67	76·46	1154·8	16·72	41·48	47·34	17·28	14·96

Officers.

In an annual average strength of 409 officers, there were 309 attacks of illness, and 7 deaths, being in the rates of 755·5 and of 17·11 per 1,000 of the strength respectively.

34 officers were invalided, being in the proportion of 83·13 of the strength.

The deaths were due to cholera (1), apoplexy (2), valve disease of the heart (1), dysentery (1), rupture of viscera from a fall (1), and one death by a gun shot, was suicidal.

Women.

In an average annual strength of 1,413 wives of non-commissioned officers and men, there were 1,123 admissions into hospital, and (in the Command) 23 deaths, being in the rates of 794·7 and of 19·82 per 1,000 of the strength respectively ; both rates exceed those of the preceding year.

The diseases which caused most admissions were fevers, conjunctivitis, diarrhœa, dysentry, hepatitis, and debility, more than a quarter of the whole being for the last named condition. There were 23 admissions for abortion, and (not included in those for disease) 298 for childbirth.

The deaths were caused by enteric fever (3), remittent fever (1), cholera (9), pyæmia (1), general dropsy (1), encephalitis (1), disease of the mastoid cells (1), dysentery or diarrhœa (6), debility (2), and three deaths were consequent on the puerpural state.

Children. *Madras*

In an average annual strength of 2,833 children of non-commissioned officers and men, there were 1,685 admissions into hospital, and 170 deaths (in the Command), being in the rates of 594·7, and of 60·01 per 1,000 of the strength respectively; the rate of admissions is higher but not importantly, than in the preceding year; the rate of deaths is 5·99 per 1,000 higher.

142 admissions were due to eruptive fevers, measles for the most part; there were 2 admissions for dengue. For enteric fever there were 4, and for other forms of continued fevers 172 admissions; for paroxysmal fevers 49 admissions; for cholera 10; pulmonary consumption caused 2; and mesenteric tabes 22 admissions; 226 admissions were on account of conjunctivitis.

The deaths were due to measles (4), enteric fever (1), simple continued fever (3), remittent fever (2), cholera (7), hooping cough (1), scrofula (4), tubercular meningitis (4), consumption (1), tabes mesenterica (12), anæmia (1), meningitis (2), hydrocephalus (2), convulsions (39), epilepsy (1), disease of heart (2), nævus (1), bronchitis (11), pneumonia (2), teething (23), quinsy (1), enteritis (1), dysentery (8), diarrhœa (21), jaundice (1), debility (12), poisoning (1), drowning (1), concussion of brain (1).

SANITARY REPORT.

Surgeon-General C. A. Gordon, C.B., reports, that the occurrence of several cases of cholera, enteric fever, and sunstroke, renders the statistics of 1876 less favourable than they otherwise would have been. Considering the alarming prevalence of cholera among a famine-stricken population throughout a great part of the Presidency, and the presence of smallpox in an epidemic form among the same class, the health of the troops has been satisfactory. Cholera is officially reported to have caused 148,193 deaths, and smallpox 23,469 deaths, among the native population during the year. The death-rate of British Troops—15·63 per mille of strength—exceeds that of 1875 by 1·12, the admission-rate is slightly greater, the daily sick-rate a little less, while the numbers invalided amounted to 42·94 per mille of strength against 52·79 in previous year, or, if calculated as in 1875, viz., by the number of invalids embarked during the year, irrespective of the year in which they passed Boards, the ratio amounts to 43·66 per mille of strength, showing a decrease of 9·13 as compared with 1875.

The sanitary condition of barracks, hospital accommodation, water supply, drainage, conservancy, and other details connected with the health of the troops, will be considered according to circles, and to the report on each circle will be appended a statement of improvements which have been effected during the year, as well as one of those proposed, but not yet carried out.

Climate.—At Madras, the mean temperature for the year was 83°·4. The rainfall—21·60 inches—was remarkably scanty. This scarcity, however, was not confined to Madras, but prevailed throughout the Presidency generally, producing a wide-spread famine and great distress among the native population. The health of the troops was not affected thereby, the supply of water throughout the year being sufficient for their requirements. At Bellary, the season was exceptionally dry, the rainfall equalled 7 inches only, being less than the average by 10 inches. The mean annual temperature was 81°·4.

This station still maintains its good name for healthiness, the 43rd Regiment, quartered here, having the smallest death-rate in the Command, viz., 4·56 per mille of strength. But for the prevalence of venereal disease, their admission-rate, too, would have been small.

At Ramandroog, the mean annual temperature was 74°·3. The rainfall equalled 15·69 inches only. This station is favourably spoken of for carefully selected cases, its chief advantages appearing to consist in its proximity to Bellary, admitting of frequent changes of troops being readily effected.

Barracks—Fort St. George.—These have undergone no change during the year. The garrison consisted of the head quarters 67th Regiment and a detachment of Royal Artillery. The quarters occupied were approved of with the

Madras. exception of the casemated barracks allotted to the unmarried men Royal Artillery, which by reason of faulty position and defective ventilation were considered unsatisfactory. The health of the men did not apparently suffer from residence therein.

St. Thomas's Mount.—The quarters in use were identical with those occupied in 1875, and met all requirements. With the exception of some minor improvements connected with the ventilation of the guard-rooms and cells, there is no change to record.

Pallaveram.—The barracks here have been kept in good sanitary condition, and no changes requiring comment have occurred. They were only in occupation between October, 1876, and April, 1877, during the annual course of rifle instruction.

Poonamallee.—The same quarters were in occupation as in previous year. The construction and plan of the buildings is obsolete and faulty, and the ventilation defective. The erection of new barracks has been sanctioned, and the digging of the foundations was actually commenced, but delay is caused by want of the necessary funds.

At Bellary, two new barrack blocks were completed for the Infantry and taken into use in April. Several minor improvements in connection with the drainage were effected. A recreation and canteen-room for the Infantry was commenced, and quarters for the Native Hospital Establishment are in course of construction.

Hospital Accommodation.—At all stations in the Circle, the buildings in occupation were the same as in 1875. At Madras, Government sanctioned the watering of the streets in front of the hospital during the latter half of the year, and the comfort of the sick was much increased thereby.

At Poonamallee, the erection of a new hospital to accommodate 90 men was commenced on 4th September, 1876, and will, it is expected, be completed by January, 1878. The estimated cost is Rs. 102,000. At Trichinopoly, the hospital has been re-roofed, the walls heightened, and verandahs constructed. Plans and estimates for an infectious disease ward in connection with it were submitted for approval in November, 1876.

Water Supply.—No change has occurred in the source, and, notwithstanding the scanty rainfall, the supply has been adequate for all purposes. That for drinking is carefully filtered prior to use. Macnamara filters, as well as those of the old three-chatty pattern, being employed for this purpose. It has been proposed to substitute an iron pipe for the masonry conduit leading from the artesian well at Bellary to Barracks, and to construct a cistern at Ramandroog for the storage of water, the source of supply at that station being at a considerable distance from barracks, and means of conveyance being available only morning and evening.

Drainage.—At Fort St. George, these are chiefly open stone channels for removal of surface water. In a few places they are covered and trapped. On several occasions during the year much annoyance was caused by the offensive odours emanating from the large public drain situated to the north of the fort. Steps have been taken by the municipality to remedy this evil, and apparently with benefit.

Elsewhere the drainage is surface only, and has met all requirements. At Bellary it has been improved by the laying down of masonry drains from the ablution-rooms.

Conservancy.—The dry-earth system is now in force at all stations both in barracks and hospitals.

Cooling of Barracks.—Punkahs and Kus-Kus tatties are in use for this purpose.

Lighting.—The barracks at Fort St. George are lit with gas. Elsewhere oil is in use both in barracks and hospitals.

The introduction of kerosine oil is still delayed for the want of lamps.

Improvements.—Fort St. George.—Municipal arrangements made for removing an offensive nuisance from the public drain.

St. Thomas's Mount.—Ventilation of guard-rooms much improved.

Poonamallee.—A new hospital, to accommodate 90 men, commenced on 4th September, 1876.

Bellary.—Surface drains provided for removal of refuse water. Two new

barrack blocks completed and taken into occupation. Recreation and canteen for Infantry, in course of construction (temporarily stopped for want of funds). 32 Quarters for Native Hospital Establishment, in course of construction. Catch-pits to lavatories removed, and refuse water carried to surface drains. *Madras.*

Some minor improvements carried out in the barracks and hospitals at Trichinopoly, Ramandroog, and Bellary.

Climate—Mysore Circle.—The past year was unusually dry, the rainfall at Bangalore amounting to 17·16 inches only, while at Cananore it barely reached 100 inches, the average annual fall at that station ranging from 120 140 inches.

This scarcity has been attended with disastrous results, similar to those already noted in connection with the Presidency Circle.

Barracks.—Considered satisfactory at all stations. At Calicut part of the barracks have been re-floored, while at Malleapoorum all the barracks have been similarly repaired, and two quarters for officers completed and handed over. At no station, except Wellington, are the barracks double-storeyed. At the latter a new block of quarters to accommodate 148 men has been completed. Up to 31st December, 1876, it was not in occupation.

Hospitals.—The same buildings were in use as noted in previous year. With the exception of the Infantry hospital at Bangalore, they are considered satisfactory. The Infantry hospital is obsolete, but there would be a difficulty in securing a suitable site for another. The occupation of the new barrack block at Wellington will necessitate increased hospital accommodation, the extent of which is not yet determined. It has been proposed to convert the Civil Lock Hospital into a female hospital, and to hand over the wards now used for women and children for the sole use of the men. This matter is still under consideration. A new mortuary was erected at Malleapoorum during the year.

Water Supply.—At Bangalore the source is two-fold, viz., from wells, and from the Ulsoor Tank. At Wellington, that used for drinking is obtained from springs, the supply is equal to 380 gallons per hour, much of which runs to waste. It has been recommended that an iron pipe be substituted for the masonry one now in use, and that a reservoir be built to contain a week's supply. The water used for ablution purposes at this station is collected from the hill sides, and stored in a large masonry reservoir holding 220,000 gallons. It is conveyed to barracks through pipes, and laid on by tap wherever required.

At all stations the supply has been sufficient for the wants of the troops.

Drainage.—At Bangalore the drainage of barracks generally was much improved. Some minor improvements in connection with the drainage at Cananore and Wellington were also effected during the year.

Conservancy.—Calicut and Malleapoorum excepted, the dry-earth system in a modified form is now adopted at all stations, both in barracks and hospital.

At Cannanore iron pans have been substituted for wooden ones, and iron receptacles specially constructed for the removal of the excreta in carts were supplied during the year. The soil is now buried inland. Formerly it was thrown over the cliff. Malleapoorum has made a slight advance during the year, the dry-earth plan having been introduced into hospital. Latrines for officers on the same system were constructed at this station, also accommodation for servants and native followers on the same plan. At Bangalore the plan of removing the urine in wooden barrels is considered objectionable, as they emit an offensive smell. Air-tight iron vessels have been suggested for this purpose.

Baths and Lavatories.—These were on the whole satisfactory. At Bangalore all corps possess plunge baths. At Cananore one is already provided for the Royal Artillery. One for the Infantry, to contain sea water, is in course of construction.

The scarcity of water throughout the year has prevented these plunge baths from being used to the extent they otherwise would have been.

Amusements.—These comprised the usual out and in-door games indulged in at most stations. The Cavalry at Bangalore have an open-air gymnasium, and athletic exercises, tent pegging, fencing, &c., are largely practised. There is also an athletic club, where once a week the different corps in garrison

Madras. compete. A new recreation-room has been provided for the Infantry at Bangalore, and is much appreciated. At Wellington, soldiers' gardens are cultivated, and arrangements made with the Commissariat to receive the produce at market rates for issue to the troops.

Good vegetables are thus secured, and the soldiers at the same time recompensed for their labours. The efforts of the men are further stimulated by the annual distribution of prizes for the best kept gardens and samples of produce.

Improvements—Bangalore.—New drains constructed in Royal Horse Artillery lines. Sergeants' mess-room, Royal Horse Artillery barracks, enlarged. Surface drainage in barracks generally much improved. New canteen and recreation-room handed over to the Infantry Iron urinals supplied to Infantry.

Wellington.—New block of barracks completed.

Cananore — Iron pans supplied for dry-earth conservancy instead of wooden tubs. Specially constructed carts supplied for removing night-soil. The latter buried instead of thrown over the cliff. Covered ways to latrines erected in Infantry barracks. Trees planted round hospital and family quarters. Covered drains converted into open ones. New canteen for Infantry taken into use. Swimming-bath in course of construction. New guard and lock-up rooms occupied by the Artillery.

Malleapoorum.—Barrack newly floored. Soil buried instead of being thrown into the river. Dry-earth system introduced into hospital. Latrines (dry-earth) for officers constructed. A new dead-house erected. The wells supplying drinking and ablution water cleaned out. Officers' quarters erected.

Cananore.—New ablution-rooms and guard-room in contemplation.

Climate—Hyderabad Circle.—At Secunderabad the hot season set in comparatively early; the rainfall during the south-west monsoon was much below the average, while the north-east monsoon failed completely, the result being a serious scarcity of water throughout the country, and great distress among the native population from failure of crops and loss of cattle.

The supply of water for the troops was sufficient, and, with the exception of a diminution in the allowance for plunge baths, they suffered no privation. The mean annual temperature was 82°·9. The total rainfall amounted to 15·47 inches, being less than in previous year by 3°·81 inches, and about 15 inches under the average annual fall. At Kamptee the hot season was excessively trying. On certain days in May and June the thermometer indicated 118° in the shade, and cases of sunstroke were frequent.

The highest recorded temperature in the shade was 122° in May, the lowest 35° in February. The mean for the year was 78°·64. The total rainfall equalled 39·32 inches. On 4th September, the safety of the cantonment was imperilled by a disastrous flood, which utterly ruined the European bazaars, and is stated to have left 9,000 natives houseless.

Barracks.—With the exception of some additional buildings erected in the new Cavalry lines, North Trimulgherry, the troops occupied the same quarters as in last year. On 4th August, another barrack block was completed for the Cavalry and handed over for occupation. The lower story of this building had been in occupation since 24th March, 1876, the occupants having been previously accommodated in the verandahs of the adjoining blocks.

Several other buildings were also completed and handed over for the Cavalry, viz., a picket guard room and stabling for a squadron. A field officer's quarters, a range of quarters for subalterns, a plunge bath, and additional stabling for two squadrons are in course of construction.

The Cavalry quarters are double-storeyed; so, too, are part of those occupied by the Artillery; but no difference was observable in the health of men occupying upper and lower rooms. At Kamptee three of the Infantry blocks were enlarged and improved in ventilation. The remainder are gradually to be remodelled on the same plan.

Hospitals.—No change has occurred since last year in the buildings occupied, and, with the exception of the Infantry who are located under the same roof, each corps has its own separate hospital.

Water Supply.—This is derived from numerous wells. In several, owing to the scanty rainfall, the supply ran short, but by judicious arrangements no

corps suffered any privation, the supply being equal to all ordinary requirements. The use of plunge baths had however to be discontinued. *Madras.*

Drainage.—Almost entirely surface. In the Infantry lines the waste water from the ablution-rooms is directed into the soldiers' gardens and used for irrigation purposes. At Kamptee, the swampy piece of ground referred to in last year's report was in process of being drained when the floods set in, and temporarily arrested the progress of the work.

Conservancy.—At Secunderabad, the modified dry-earth system is carried out both in barracks and hospitals, with the exception of the barracks and hospital Royal Artillery, and the barracks of 2nd Battalion 16th Regiment.

The excreta is carefully removed and buried over a mile from barracks. In the male hospital 2nd Battalion 16th Regiment, the latrine has been improved by the construction of a latticed window. At Kamptee, the modified dry-earth system is effectually carried out in the Infantry barracks, but not in those of the Royal Artillery. Both corps have adopted it in hospital. At Seetabuldee, it is in use both in barracks and hospital.

Improvements effected in 1876.—Secunderabad.—16th Lancers. No. 4 barrack block with offices completed and handed over on 4th August. Picket guard-room completed and occupied on 9th June. Excellent stabling for one squadron completed. Main well protected by a corrugated iron hood placed on iron supports. A pumping apparatus and cistern to hold 1,200 gallons provided for same well. Well on west front of barracks deepened and faced with stone.

Kamptee.—Three Infantry barrack blocks enlarged and improved in ventilation. These alterations are stated to have lessened the temperature three degrees during the hot season. Spirit issue-room of canteen enlarged and ventilation improved. Six of the twelve cells in use with the Infantry have been thatched with a view to rendering them cooler.

Seetabuldee.—Several minor details carried out for improvement of ablution-rooms. A roomy and well-ventilated cell provided for prisoners.

Climate.—The chief points of interest in the climate of the different stations in the Burmah Circle, are noted in the following Table :—

Stations.	Mean Annual Temperature.	Highest Monthly Mean.	Lowest Monthly Mean.	Rainfall.	
				Days.	Inches.
Rangoon ..	80°·80	April, 87°·6	Dec., 74°·65	151	97·30
Thayetmyo ..	No instruments	.. ..	.. ..	..	..
Tonghoo ..	80°·86	April, 88°·95	Dec., 70°·54	130	69·78
Port Blair ..	No instruments	.. ..	.. ..	..	..

Barracks.—At Rangoon, the same buildings were in use as in previous years. Two new bungalows for the Infantry, each capable of accommodating 100 men were completed during the year; a third one is in course of construction. The married quarters of the Infantry are old, condemned, and reported to be out of repair, while those of the Artillery are said to be satisfactory in all respects. New cook-houses were provided for the latter during the year.

At Thayetmyo no change occurred in the quarters occupied. The wooden hut now occupied by a small detachment of the Royal Artillery in the redoubt, will be disused when the new quarters in the entrenchment are completed. The latter is to be single-storeyed, and will accommodate 80 men. At Tonghoo and Port Blair no changes requiring comment are recorded.

Hospital Accommodation.—At Rangoon, there has been no change in the buildings occupied. The Artillery and Infantry possess separate hospitals. The construction of new hospitals is said to be in contemplation. At Thayetmyo the sick of Artillery and Infantry are both accommodated in the same building. Although called a Station Hospital it is so in name only, the two corps being under separate medical charge, although accommodated under the same roof. The size of the building being barely sufficient for the accommodation of the

Madras. sick, some rooms not originally intended for wards have been used as such, and are rather defective in ventilation, but there has been no overcrowding, any sick over the regulation number being placed in an unoccupied barrack temporarily utilised as a supplemental hospital. The erection of a few subsidiary buildings, as apothecary's and sergeants' quarters, would do away with the necessity for using this supplemental building. The various offices connected with the hospital are reported satisfactory, with the exception of the mortuary, which is considered too small and too near the public road. Several minor improvements have been effected during the year, and are detailed in the abstract.

At Tonghoo and Port Blair there have been no changes requiring notice.

Water Supply.—Obtained from wells at all stations. At Rangoon, water for ablutionary purposes is occasionally drawn from a tank. At Thayetmyo a scheme for supplying water from the Irrawady was in contemplation some time ago, but no steps appear to have been taken to carry it out. The supply everywhere has been sufficient and the quality good.

Conservancy.—The modified dry-earth system is carried out at some stations only, viz., in the Infantry barracks and in all hospitals at Rangoon, at Thayetmyo in the Artillery barracks only, whilst at Tonghoo it is adopted in all barracks but not apparently in hospital. Scarcity of labour and financial consideration appear to delay its general introduction. Elsewhere the old system is still pursued.

Improvements.—Rangoon.—Ground in vicinity of Infantry barracks in process of levelling to form a parade-ground; drainage from Royal Artillery barracks cook-house improved; Infantry barracks for 100 men each, with washouses, &c., completed during the year; a similar barrack in course of construction, another Infantry barrack, female hospital for Royal Artillery, and quarters for medical subordinates are to be commenced in 1877.

Improvements recommended.—New barracks for the Troops, to replace the old ones still in occupation; new hospitals; repair of flooring of Artillery barrack; latrines; removal of ablution rooms from beneath Infantry barracks.

Several minor improvements in barracks and hospitals have been carried out during the year in Thayetmyo and Tonghoo.

Introduction of dry-earth system into barracks and hospital; a new mortuary, the present one being too small and too near the public road; and several minor alterations and repairs both in barracks and hospitals.

Improvements recommended.—Port Blair.—Four new boats for the use of the men; erection of a gymnasium, fives' court, and skittle alley; window to be placed in the "solitary cell" to improve the ventilation.

Venereal Disease.—The admission rate from this disease, including all varieties, primary and constitutional combined, shows a decided increase as compared with 1875, the ratios for the two years being 89·20 and 108·16 respectively. The mortality, too, was less, viz., 1 against 5, or a ratio of ·09 against ·45 per mille of strength.

The following Table has been prepared to show the prevalence of syphilis at the different stations in the Command during each of the five years 1872–76. The year in which Lock Hospitals were established is also stated:—

Madras.

	Ratio of Admission for Syphilis per 1,000 of Strength.				
	1876.	1875.	1874.	1873.	1872.
Where Lock Hospitals existed:—					
Madras	89·62	135·66	69·77	62·77	67·57
Saint Thomas's Mount	58·65	100·82	76·27	42·86	97·99
Trichinopoly	29·96	104·32	63·75	41·23	64·51
Bellary	174·83	201·76	305·36	266·52	224·18
Bangalore	39·10	91·73	133·33	89·23	89·32
Cananore	76·15	39·34	47·54	17·41	14·69
Wellington	76·06	149·11	67·94	98·43	24·82
Secunderabad	110·87	116·21	43·83	55·97	119·19
Kamptee	81·41	132·34	200·45	132·33	87·09
Seetabuldee	100·00	65·22	282·61	21·28	212·77
Rangoon	107·82	100·65	65·37	84·41	98·57
Thayetmyo	56·38	39·71	32·45	23·98	21·35
Tonghoo	126·91	50·96	114·76	..	..
Where no Lock Hospitals existed:—					
Tonghoo	..	..	..	91·68	71·12
Pallaveram	..	32·26	36·36	31·58	..
Poonamallee	326·67	250·00	135·30	171·87	285·71
Ramandroog	96·15	463·41	418·61	42·55	43·47
Calicut	83·33	141·41	20·40	121·95	56·82
Mallcapoorum	10·75	52·08	..	37·50	10·31
Port Blair	44·78	102·36	..	19·60	43·86

Compared with 1875, syphilis (embracing all its varieties) has notably decreased at every station in the Presidency Circle, likewise at all in the Mysore Circle, with the exception of Cananore; also in the Hyderabad Circle, particularly at Kamptee.

In the Burmah Circle, an increase is noted at all stations, particularly at Thayetmyo.

The total admissions for primary syphilis and gonorrhœa combined are less than in 1875, the respective ratios being 134·56 and 145·10 per mille of strength.

These good results were attributed to the working of the Act, which appears not only to have lessened disease, but to have rendered the type less virulent.

No special arrangements or facilities exist at any station for nightly private ablution. In a memorandum submitted by me to Government on May 5th, 1876, in connection with this subject, I suggested that means for private ablution should be provided in all registered brothels, and that in barracks "Acton's Jets" should be fixed, all soldiers arriving after hours being marched direct to the ablution-room before being permitted to go to bed.

Bombay.

II.—Bombay.

The average annual strength of the non-commissioned officers and men in the Bombay Command was 10,362; the admissions into hospital were 13,292, being in the rate of 1282·8 per 1,000 of the strength; the deaths, including those of invalids on the passage or after arrival at home were 144, being in the rate of 13·90 per 1,000; the average number of men in hospital daily throughout the year was 509, being in the rate of 49·12 per 1,000 men. Compared with the preceding year there is a reduction of 89·0 per 1,000 men in the admission rate, of 8·05 in the death rate, and of 7·34 in the constantly sick rate.

The admissions and deaths in each class and order of diseases, are shown in the following Table:—

Order.	Diseases.	Strength, 10,362.				Ratio per 1,000 of Mean Strength.			
			Deaths.			1876.		1869–75.	
		Admissions.	In India.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	5,181	23	1	24	500·0	2·32	636·8	5·09
2	Constitutional „ ..	1,334	12	6	18	128·7	1·74	144·9	2·16
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	152	10	..	10	14·7	·96	17·0	2·40
2	Eye	234	..	..	..	22·6	..	26·2	..
3	Ear	78	..	..	..	7·5	..	6·3	·01
4	Nose	9	..	..	..	·9	..	·6	..
5	Circulatory System ..	167	11	..	11	16·1	1·06	13·7	1·16
6	Absorbent „ ..	225	..	..	..	21·7	..	22·9	..
8	Respiratory „ ..	364	10	1	11	35·1	1·06	42·9	·71
9	Digestive „ ..	2,222	38	7	45	214·4	4·34	221·1	3·81
10	Urinary „ ..	959	..	..	..	92·5	..	84·1	·23
11	Generative „ ..	86	..	..	..	8·3	..	10·7	·01
12	Organs of Locomotion..	52	..	..	..	5·0	..	4·5	·05
13	Cellular Tissue.. ..	125	..	1	1	12·1	·10	17·9	..
14	Cutaneous System ..	669	..	..	..	64·6	..	71·3	·01
	III. *Conditions, &c.*								
	Debility..	325	..	..	..	31·4	..	20·0	·03
	IV. *Poisons* ..	92	3	..	3	8·9	·29	8·4	·30
	V. *Injuries.*								
2	Accidental	999	15	..	15	96·4	1·45	89·0	·73
3	Homicidal	..	..	..	..	..	..	·1	·08
4	Self-inflicted	3	6	..	6	·3	·58	·2	·47
5	Judicial..	..	..	..	..	..	..	..	·07
	VI. *Surgical Operations.*	2	..	..	..	·2	..	·1	·01
	No appreciable disease	14	..	..	..	1·4	..	·7	..
	Total ..	13,292	128	16	144	1282·8	13·90	1439·4	17·33
	Average of 10 years, 1866–75	..	..	..	..	1381·5	17·32	..	..

GENERAL DISEASES.—The rate of prevalence of diseases in this class is lower than in 1875 by 22·0 per 1,000 men; the whole of the decrease is in the *febrile* group. The rate of mortality for the class is 6·96 per 1,000 men lower than in the preceding year, and the reduction amounts to 6·19 per 1,000 in the *febrile*, and to ·77 per 1,000 in the *constitutional group*.

The admissions and deaths caused by the principal diseases of this class, are shown in the following Table:—

Strength	10,362		Ratio per 1,000 of Mean Strength.			
			1876.		1869–75.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	16	..	1·5	..	1·4	·05
Continued „	924	17	89·2	1·64	148·7	1·81
Paroxysmal „	4,216	3	406·9	·29	481·1	1·16
Cholera	5	2	·5	·19	3·0	1·98
Influenza	1	..	·1	..	·8	..
Erysipelas	17	2	1·6	·19	1·3	·04
Other diseases of this group ..	2	..	·2	..	·5	·05
Total	5,181	24	500·0	2·31	636·8	5·09
Constitutional—						
Rheumatism.	339	..	32·7	..	41·7	·05
Syphilis	893	1	86·1	·10	84·9	·12
Scrofula, Phthisis, &c.	63	16	6·1	1·54	9·6	1·71
Scurvy and Purpura	3	..	·3	..	·6	·07
Anæmia	26	..	2·5	..	7·1	·05
Other diseases of this group ..	10	1	1·0	·10	1·0	·16
Total	1,334	18	128·7	1·74	144·9	2·16

Eruptive Fevers.—13 of the admissions for fevers of this nature were from small-pox, 1 was from chicken-pox, and 2 were from vaccination.

Continued Fevers.—For all fevers of this group together, there is a reduction of 14·3 per 1,000 men on the rate of prevalence in the preceding year, and a reduction of ·49 per 1,000 in the rate of deaths. *Enteric Fever.*—There were 51 admissions for this form of fever, being in the rate of 4·9 per 1,000 of the strength; the deaths were 17 in number, or 333·3 per 1,000 of the attacks of the disease, showing a decrease of 95·3 per 1,000 on the rate of deaths to attacks for the preceding year. The proportion of admissions for *simple continued fever*, and for *febricula* together, is a little lower than that of 1875; no deaths were due to either of these forms of fever.

Paroxysmal Fevers.—The rate of prevalence is nearly the same as that for the preceding year, the difference (3·1 per 1,000 men) being in favor of the present year; the rate of mortality (·29 per 1,000 men) is only one-third of the rate for 1875.

Cholera.—This disease, which was present in an epidemic form, and caused a relatively large loss in 1875, caused only 5 admissions and 2 deaths in the present year, they took place in the second, and in the third quarters of the year.

Rheumatism.—The rate of prevalence is 10·9 per 1,000 men lower than in 1875.

Syphilis.—There is a large increase, 15·2 per 1,000 men, in the rate of admissions on that of the preceding year.

Bombay.

Scrofula, Phthisis, &c.—The rate of prevalence and also that of mortality is lower than in the preceding year, the first by 1·1, the last by ·39 per 1,000 men, facts which are of no particular significance, as in these diseases the results are so much influenced by the amount of invaliding.

Anæmia.—The rate of admissions is only two-thirds of that of the preceding year.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions is 3·1 per 1,000 men lower than in 1875, and the rate of mortality is less than one-third; the last circumstance is due to the comparative infrequency of apoplexy, and of sunstroke, in the present year.

The rate of admissions is lower than in the preceding year for *diseases of the eye, ear, circulatory, absorbent, respiratory, digestive,* and *generative systems,* for diseases of the *cellular tissue,* and of the *cutaneous systems;* the most considerable reduction is in that of diseases of the *digestive system,* for which it amounts to 28·5 per 1,000 men; for diseases of the *urinary system,* and of the *organs of locomotion,* the rates of prevalence are slightly higher. The rates of mortality are fractionally higher than those of the preceding year for diseases of the *circulatory, respiratory,* and *digestive systems.*

Conditions, &c.—*Debility.*—The rate of admissions is fractionally higher than in 1875.

Poisons.—The rate of admissions is nearly the same as that for the preceding year; the rate of deaths is fractionally lower, 41 of the admissions were for delirium tremens, 48 for alcohol poisoning, 1 for poisoning by sulphate of zinc, 1 admission was for a snake bite, and 1 for sting by a scorpion.

Injuries.—*Accidental.*—The admissions in this order are in a lower rate than in 1875, by 7·4 per 1000 men, but the rate of mortality is ·48 per 1,000 men higher. One of the deaths was from lightning, 5 were from drowning, 2 from fractures, 6 from gunshot, and 1 was due to the impaction of a foreign body in the larynx. The 6 *self-inflicted* deaths, were by gunshot in each instance.

The admissions and deaths at the principal stations in the Command, are shown in the following Table:—

Military Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.			
					Admitted.	Died.	Average of 10 Years, 1866–75.	
							Admitted.	Died.
Presidency	Bombay	506	1,043	4	2061·3	7·91	1474·1	16·29
	Deolali	114	125	1	1097·1	8·77	..	..
	Baroda	211	313	3	1483·4	14·22	..	..
	Ahmedabad ..	262	427	4	1626·0	15·27	2040·0	23·76
	Mount Aboo ..	66	73	..	1106·1	..	1839·6	17·16
	Deesa	689	667	8	968·1	11·61	1318·0	17·35
	Aden	721	562	11	779·5	15·26	1040·3	14·30
	Kurrachi ..	677	773	6	1141·8	8·86	1534·3	13·31
	Hyderabad ..	360	792	5	2200·0	13·90	1327·0	17·08

Military Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.			
					Admitted.	Died.	Average of 10 Years, 1866-75. Admitted.	Died.
Poona ..	Poona	1,508	2,087	21	1384·0	13·93	1394·5	12·57
	Kirkee	430	555	8	1293·0	18·60	1318·5	11·56
	Ahmednagar ..	466	683	3	1465·7	6·44	1148·4	9·03
	Satara	154	117	..	760·0	..	1122·7	12·28
	Belgaum	989	835	7	844·3	7·08	1008·0	8·35
Mhow ..	Mhow	1,151	1,575	5	1368·4	4·34	1578·9	12·98
	Indore	86	163	..	1895·4	..	1377·4	12·90
	Neemuch ..	403	730	10	1811·4	24·81	1986·3	28·84
	Nasirabad ..	640	955	13	1492·2	20·31	1781·6	31·41
	Assirgarh ..	43	56	..	1302·2	..	1280·4	11·41
	Depôts, Sanitaria, &c...	196	319	9	1627·5	45·92	2389·6	59·10
	Troops on the March, &c. ..	373	253	2	678·3	5·36	904·6	12·30

The rate of admissions is lower than that of the preceding year for each of the stations given in the Table except Deolali, Deesa, Hyderabad, Ahmednagar, Indore, and Assirgarh; in the instance of Deesa, and of Indore, the excess is not considerable, in that of Hyderabad, it amounts to 923·, and in that of Ahmednagar to 511· per 1,000 men. The exceptionally great prevalence of ague at Hyderabad in the last quarter of the year, accounts for the high rate of admissions there; the Medical Officer of the hospital states, that the outbreak of ague coincided in point of time with the drying up of the inundated lands adjoining the river, following recession into the usual channel, and that the Native population, as well as the European, suffered greatly from ague. The excess in the rate of sickness for Ahmedabad, was also due to ague, but the Medical Officer of the detachment of the 1st Battalion 2nd Regiment stationed here notes that the men acquired ague at Colaba, and arrived at Ahmednagar in an extremely weakened state, and that their health was greatly improved by residence at the last-named place.

The admissions and deaths, in the various classes and orders of diseases, in each division of the Command, are shown in the following Table:—

Order.	Military Divisions	Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.		Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.	
	Average Annual Strength	3,635		3,324		2,327		373		196		Ratio per 1,000.									
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																				
1	Febrile Group	2,144	7	1,608	5	1,275	10	47	...	51	...	589·8	1·92	483·8	1·50	547·9	4·30	126·0	...	260·2	...
2	Constitutional ,,	329	3	520	3	357	2	47	...	68	3	90·5	·83	156·4	·90	153·4	·86	126·0	...	347·0	15·31
	II. *Local Diseases.* Diseases of the—																				
1	Nervous System	58	6	37	1	50	1	1	...	4	...	16·0	1·65	11·1	·30	21·5	·43	2·7	...	20·4	...
2	Eye	88	...	63	...	75	...	5	...	7	...	24·5	...	18·9	...	32·2	...	13·4	...	35·7	...
3	Ear	37	...	25	...	13	...	...	...	...	...	10·2	...	7·5	...	5·6	...	...	...	...	...
4	Nose	2	...	4	...	4	...	...	...	...	...	·5	...	1·2	...	1·7	...	...	...	...	...
5	Circulatory System	70	4	41	4	45	3	2	...	7	1	19·2	1·10	12·3	1·21	19·3	1·29	5·4	...	35·7	5·10
6	Absorbent ,,	74	...	72	...	40	...	14	...	27	...	20·4	...	21·7	...	17·2	...	37·5	...	137·8	...
8	Respiratory ,,	110	4	121	4	99	...	18	...	13	1	30·3	1·10	36·4	1·20	42·6	...	48·3	...	66·3	5·10
9	Digestive ,,	672	11	701	15	702	7	45	1	76	4	184·8	3·02	210·9	4·52	301·7	3·01	120·6	2·68	387·8	20·41
10	Urinary ,,	310	...	304	...	242	...	25	...	14	...	85·3	...	91·5	...	104·0	...	67·0	...	71·4	...
11	Generative ,,	27	...	39	...	15	...	3	...	3	...	7·4	...	11·7	...	6·4	...	8·0	...	15·3	...
12	Organs of Locomotion	13	...	21	...	7	...	1	...	3	...	3·6	...	6·3	...	3·0	...	2·7	...	15·3	...
13	Cellular Tissue	36	...	53	...	37	...	1	...	...	...	9·9	...	16·0	...	15·9	...	2·7	...	...	...
14	Cutaneous system	320	...	162	...	162	...	12	...	13	...	88·0	...	48·7	...	69·6	...	32·2	...	66·3	...
	III. *Conditions, &c.*																				
	Debility	132	...	68	...	106	...	7	...	20	...	36·3	...	20·5	...	45·6	...	18·8	...	102·0	...
	IV. *Poisons*	29	3	50	...	18	...	...	...	1	...	8·0	·83	15·0	...	7·7	...	...	...	5·1	...
	V. *Injuries.*																				
2	Accidental	335	2	314	3	279	9	25	1	11	...	92·1	·55	94·5	·90	120·0	3·87	67·0	2·68	56·1	...
4	Self-inflicted	2	3	...	2	...	...	...	...	1	...	·5	·83	...	·60	...	...	...	...	5·1	...
	VI. *Surgical Operations*	1	...	...	...	1	...	...	...	...	...	·2	...	...	...	·4	...	...	...	...	...
	No appreciable disease	4	...	5	...	3	...	...	...	...	...	1·1	...	1·5	...	1·2	...	...	...	...	...
	Total	4,793	43	4,208	37	3,530	32	253	2	319	9	1318·6	11·83	1265·9	11·13	1516·9	13·76	678·3	5·36	1627·5	45·92

General Diseases.—Compared with the preceding year there is an increase of 70·1 per 1,000 men in the rate of the Presidency Division, the whole of it occurs in the *febrile group;* with increased prevalence of diseases of this class however the death-rate is 4·58 per 1,000 men, or considerably more than half, lower. For each of the other Divisions, the rate of prevalence of general diseases is lower, whilst (as a consequence of the comparative absence of cholera) the rate of mortality is much lower. *Bombay.*

The admissions and deaths from the principal diseases in the *febrile group*, are shown in the following Table :—

Military Divisions... ...	Presidency.		Poona.		Mhow.		Troops on March		Convalescent Depôts and Invalids		Ratio per 1,000.								Troops on March.		Convalescent Depots and Invalids.	
Strength	3,635		3,324		2,327		373		196		Presidency.		Poona.		Mhow.							
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.
Febrile—																						
Eruptive Fevers	5	...	8	...	1	...	...	...	...	...	1·4	...	2·4	...	·4	...			...	...	...	...
Continued ,, ...	387	3	113	4	369	9	3	...	8	...	106·5	·83	34·0	1·20	153·9	3·87			8·0	...	40·8	...
Paroxysmal ,, ...	1,746	1	1,472	1	915	1	42	...	43	...	480·3	·27	442·9	·30	393·2	·43			112·6	...	219·4	...
Cholera	4	2	1	...	...	...	...	...	...	...	1·1	·55	·3	...	...	...			...	...	...	...
Influenza	...	...	...	...	1	...	...	...	...	...	...	...	...	...	·4	...			...	...	...	...
Erysipelas	2	1	12	...	...	...	2	...	...	...	·6	·27	3·6	...	...	...			5·4	...	...	...
Other diseases of this group ... ... }	...	...	2	...	...	...	...	...	...	...	...	...	·6	...	...	...			...	...	...	...
Total	2,144	7	1,608	5	1,275	10	47	...	51	...	539·9	1·92	483·8	1·50	547·9	4·30			126·0	...	260·2	...
Constitutional—																						
Rheumatism	122	...	87	...	97	...	12	...	17	...	33·6	...	26·2	...	41·7	...			32·2	...	86·7	...
Syphilis	178	...	401	...	226	1	35	...	40	...	48·9	...	120·6	...	97·2	·43			93·8	...	204·0	...
Scrofula, Phthisis, &c. ...	21	3	20	3	18	1	...	...	9	2	5·8	·83	6·0	·90	7·7	·43			...	...	45·9	10·20
Scurvy and Purpura ...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	·9	...			...	...	...	...
Anæmia	4	...	10	...	11	...	...	...	1	...	1·1	...	3·0	...	4·7	...			...	...	5·1	...
Other diseases of this group ... ... }	4	...	2	...	3	...	...	...	1	1	1·1	...	·6	...	1·2	...			...	...	5·1	5·10
Total	329	3	520	3	357	2	47	...	68	3	90·5	·83	156·4	·90	158·4	·86			126·0	...	346·8	15·30

Bombay.

Eruptive Fevers.—The rate of admissions for fevers of this nature is nearly double that of the preceding year; the increase is mainly due to the presence of small-pox in two of the Divisions, in the first and second quarters of the year.

Continued Fevers.—Compared with the preceding year, the rate of admissions is higher for the Presidency Division by 14·5 per 1,000 men, and for the Mhow by 67·6; on the other hand the ratio for Poona is less by 10·6 per 1,000 men. The rate of mortality of continued fevers, is lower for the Presidency and Poona, but is 3·45 per 1,000 men, or more than nine times higher for the Mhow Division.

Enteric Fever.—The relation of *enteric fever* to locality and to season is shown in the following Table, which has been compiled from the Quarterly Returns of the Command:—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Presidency	Bombay ..	..	..	..	..	..	..	1	1	1	1
	Baroda ..	..	..	..	..	1	1	2	..	3	1
	Ahmedabad ..	1	..	1	1	..	..	1	..	3	1
	Hyderabad ..	..	..	..	..	1	..	..	..	1	..
	Aden	..	..	2	1	..	..	..	..	2	1
Poona ..	Poona	2	1	4	1	2	1	2	1	10	4
Mhow ..	Mhow	..	..	5	1	2	1	..	..	7	2
	Neemuch ..	..	..	..	..	9	2	3	5	12	7
	Nasirabad ..	..	..	2	..	..	..	1	..	3	..
	Asirgarh ..	..	..	..	..	..	..	1	..	1	..
Depôts, &c. ..	Tarraghar ..	..	..	..	..	1	..	..	..	1	..
	Total ..	3	1	14	4	16	5	11	7	44	17

From the above it will be seen that the prevalence of *enteric fever* as in former years, had a wide area of diffusion, but not usually much intensity (as regards numbers affected) at any of the places at which it appeared. The exception to this was in the instance of Neemuch, where 12 attacks occurring in rapid sequence, among the men of the E Battery of the 4th Brigade Royal Artillery, constituted an outbreak of relative importance, and also one of some ætiological interest. The Medical Officer reports concerning it that all the men attacked were received from two of the three blocks of buildings occupied, and that the probable cause of the outbreak was the insanitary state of the latrine, used exclusively by the men residing in the houses which furnished cases of the fever; he assumes that infection of this latrine must have taken place through the agency of an unrecognised first case, in which the disease was acquired from without; the men of the battery were in their second year of residence in India.

Paroxysmal Fevers.—The ratio of prevalence is higher than in 1875 for the Presidency, and for the Poona Division, but is lower for the Mhow by 140 per 1,000 men.

The following Table, taken from the report of the Principal Medical Officer, shows the proportional prevalence of paroxysmal fevers at the several stations

in the Command, arranged in the order of the greatest prevalence, in the present and in the preceding year :— *Bombay.*

Stations.	Rate of Admissions per 1,000 of Strength.		Stations.	Rate of Admissions per 1,000 of Strength.	
	1876.	1875.		1876.	1875.
Hyderabad ..	1356·5	622·3	Indore	279·1	676·8
Bombay	1085·8	1058·6	Kirkee ..	278·6	319·6
Aboo ,, ..	750·0	424·5	Purandhar ..	239·1	592·1
Ahmedabad ..	709·9	590·6	Belgaum ..	216·6	143·0
Poona	614·1	720·9	Teethul ..	20·0	..
Neemuch ..	590·6	784·4	Kurrachi ..	172·8	347·0
Ahmednagar ..	455·3	90·9	Deesa	171·0	119·5
Ghizri	407·4	176·5	Satara	163·4	276·7
Mhow	361·7	486·5	Taraghur ..	136·4	500·0
Nasirabad ..	358·1	393·4	Aden	135·0	276·7
Deolali	356·6	115·9	Assirgarh ..	116·3	271·7
Baroda	303·3	134·8	Khandala ..	105·3	..

Cholera.—The attacks of this disease occurred at the following stations :—Kurrachi (1), Deesa (1), Ahmedabad (2), Poona (1).

Rheumatism.—Each of the Divisions shows a reduction in the rate of prevalence on that of the preceding year, that for Mhow (28·3 per 1,000 men) being the greatest.

Syphilis.—The Presidency Division shows a reduction in the rate of prevalence of 9·7 per 1,000 men, whilst each of the other Divisions shows an increase, that for Poona being 34·71, that for Mhow 8·3 per 1,000 men.

Scrofula, Phthisis, &c.—The Presidency and the Poona Divisions, each show a small decrease on the rate of prevalence of the preceding year, the Mhow, a small increase, whilst the rate for Depôts, is the same in both years.

Local Diseases.—*Diseases of the Nervous System.*—Compared with the preceding year, the Presidency Division shows slightly higher rates of prevalence, and the Poona and the Mhow lower rates; the rate of mortality is much lower for each Division.

Diseases of the Eye.—The rates of prevalence are lower than those for 1875, in the Presidency, and in the Poona Divisions, that for the Mhow, is higher by 3·7 per 1,000 men.

Diseases of the Circulatory System.—The rates of admissions in the various Divisions differ only unimportantly from those of the preceding year; in the present year the rate of the Poona Division, is much lower than that of either of the others, but in a comparison the small number of observations deprives this result of any particular value.

Diseases of the Respiratory System.—Compared with the preceding year there is a reduction in the rate of admissions for each of the Divisions, and also for Depôts; as in 1875 the rate for the Mhow Division exceeds that of either of the others.

Bombay.

Diseases of the Digestive System.—The rate of admissions of the Presidency Division is 48·6 per 1,000 men, and that of the Poona is 58· lower than in the preceding year; on the other hand the rate of the Mhow Division is 27· and that of Depôts is 20·4 per 1,000 men higher. In the Poona Division, with a lower admission, there is a higher death rate; in the Presidency, both rates are lower; in the Mhow, a higher admission and lower death-rate coexist: the death-rate of Depôts is double that of 1875.

Diseases of the Urinary System.—The rate of admission is in the Poona Division lower by 22·6 per 1,000 men than in the preceding year, that for each of the other Divisions is higher, for Mhow, the increase amounts to 25·2 per 1,000 men.

Poisons.—Compared with 1875 there is an increase on the rate of admissions in the Presidency and in the Poona Divisons, a decrease in the Mhow.

Injuries.—*Accidental.*—Each of the Divisions shows a moderate reduction in the rate of admissions on that of 1875.

The admissions, deaths, invaliding, and the number of constantly sick, in the several Corps which served in the Command during the year, are shown in the following Table:—

Regiments.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Number constantly Sick.	Ratio per 1,000 of Annual Strength.				Average Sick time to each Soldier.	Average duration of each Case of Sickness.	Stations during the Year.
						Admitted.	Died.	Invalided.	Constantly Sick.			
										Days.	Days.	
CAVALRY.												
3rd Hussars	444	633	6	37	33·56	1425·7	13·51	83·33	75·59	27·81	19·35	Mhow; a detachment at Indore
ROYAL ARTILLERY.												
D Battery, C Brig., Roy. Horse Artillery	145	244	12	22	10·45	1682·8	82·76	151·72	72·07	26·31	15·63	Kirkee.
E „ „ „	138	190	1	20	8·47	1376·8	7·24	144·93	61·40	22·40	16·22	Mhow.
A Batt., 4th Brig., R.A.	166	226	2	4	9·66	1361·4	12·05	24·09	57·83	21·24	15·60	Kirkee.
B „ „ „ „	159	270	1	13	9·65	1695·6	6·29	81·76	60·69	22·15	13·04	Deesa; dets. at Aboo and at Ahmedabad.
C „ „ „ „	159	206	2	4	10·76	1295·6	12·58	25·16	67·67	24·66	19·06	Belgaum.
D „ „ „ „	162	476	5	5	10·24	2938·3	30·86	30·86	63·21	23·07	7·85	Kurrachi and Hyderabad.
E „ „ „ „	159	349	8	8	12·41	2195·0	50·32	50·32	78·05	28·49	12·87	Neemuch, and on the March.
F „ „ „ „	170	267	2	10	11·67	1570·6	11·77	58·82	68·25	24·91	15·95	Ahmedabad, and on the March.
G „ „ „ „	150	339	9	12	13·53	2260·0	60·00	80·00	90·20	32·92	14·27	Nasirabad.
1st „ 6th „ „	91	132	..	4	5·53	1450·6	..	43·96	60·77	22·18	15·29	Colaba.
2nd „ „ „ „	79	68	1	..	3·10	860·8	12·66	..	39·24	14·32	16·64	Aden.
3rd „ „ „ „	85	89	2	4	4·07	1047·1	23·53	47·07	47·88	17·08	16·70	Aden.
4th „ „ „ „	81	111	1	10	5·07	1370·4	12·35	123·46	62·60	22·85	16·67	Mhow; detachment at Colaba.
5th „ „ „ „	77	108	3	4	4·08	1402·6	38·96	51·95	52·99	19·34	13·79	Colaba, and at Aden.
6th „ „ „ „	79	185	..	4	6·87	2341·8	..	50·63	86·96	31·34	13·55	Colaba.
B „ 9th „ „	171	245	1	9	8·04	1432·8	5·85	52·63	47·02	17·16	11·98	Kurrachi.
E „ „ „ „	165	239	2	3	8·46	1448·5	12·12	18·18	51·27	18·70	12·92	Kirkee, and at Baroda.
F „ „ „ „	162	255	2	11	7·35	1574·0	12·35	67·90	45·37	16·56	10·52	Neemuch, and at Ahmednagar.
Total Royal Artillery	2,398	3,999	54	147	149·41	1667·6	21·27	61·30	62·31	22·74	13·67	

Regiments.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Number constantly Sick.	Rate per 1,000 of Annual Strength.				Average Sick time to each Soldier.	Average duration of each Case of Sickness.	Stations during the Year.
						Admitted.	Died.	Invalided.	Constantly Sick.			
ROYAL ENGINEERS ..	40	2	..	..	·15	..	..	..	..	..	..	Kirkee.
INFANTRY.												
1st Batt., 2nd Foot ..	885	1,297	11	29	51·44	1465·5	12·43	32·77	58·12	21·22	14·55	Ahmednagar, and at Poona; detachments at Colaba and at Satara.
2nd „ 7th „ ..	881	785	10	53	38·60	891·0	11·35	60·16	43·81	15·77	17·95	Poona, and Belgaum.
2nd „ 15th „ ..	896	995	13	29	36·51	1110·5	14·52	32·37	40·75	14·87	13·40	Poona, and Deesa; detachments at Ahmedabad and at Baroda.
2nd „ 17th „ ..	102	101	1	..	2·57	990·2	9·80	..	25·20	9·29	9·28	Arrived from England on 7th November; Mhow, with detachment at Assirgarh.
2nd „ 25th „ ..	119	31	2	..	1·79	260·6	16·81	..	15·04	5·41	21·07	Aden; left for England on 2nd March.
55th Foot	524	378	7	18	18·65	721·4	13·36	34·35	35·60	12·99	18·01	Arrived in the Bombay Command from Bengal on February 15; Aden.
56th „	782	949	9	46	36·18	1213·6	11·50	58·82	46·27	16·89	13·92	Kurruchi; detachment at Hyderabad.
66th „	851	1,272	12	25	35·80	1494·7	14·10	29·38	42·07	15·35	10·28	Belgaum, Poona, and Ahmednagar; detachments at Bombay and Satara.
68th „	865	1,168	5	44	45·66	1350·3	5·78	50·87	52·79	19·27	14·27	Nasirabad; detachment at Neemuch and at Tarragarh.
83rd „	894	871	11	43	35·72	974·3	12·30	48·11	39·96	14·58	14·97	Deesa; detachments at Aboo, Ahmedabad, and Baroda.
108th „	681	811	3	11	22·71	1190·9	4·41	16·15	33·35	12·17	10·22	Nasirabad and Mhow; detatchments at Indore and Assirgarh. Left for England Dec. 20.
Total Infantry ..	7,480	8,658	84	298	325·63	1157·5	11·23	39·84	43·54	15·89	13·72	

The relation between length of residence in the Command (or in India) and the results as to health of the different corps, are shown in the following Table :— *Bombay.*

Regiments, &c.	Year of Service in the Command (or in India).	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Number of constantly Sick.	Rate per 1,000 of Annual Strength.				Average Sick time to each Soldier.	Average Duration of each Case of Sickness.
							Admitted.	Died.	Invalided.	Constantly Sick.		
											Days.	Days.
2nd Batt., 17th Foot	1st	102	101	1	..	2·57	990·2	9·80	..	25·20	9·29	9·28
4th Brigade, R.A. .. 2nd Batt., 15th Foot	2nd	2,021	3,128	42	85	114·43	1547·8	20·78	42·06	56·62	20·67	13·35
2nd Batt., 7th Foot.	3rd	881	785	10	53	33·60	891·0	11·35	60·16	43·81	15·99	17·94
C Brigade, R.H.A...	4th	283	434	13	42	18·92	1533·6	45·94	148·41	66·85	24·40	15·91
68th Foot	5th	865	1,168	5	44	45·66	1350·3	5·78	50·87	52·79	19·27	14·27
56th Foot	6th	782	949	9	46	36·18	1213·5	11·50	58·82	46·27	16·89	13·92
66th Foot .. .. 83rd „	7th	1,745	2,143	23	68	71·52	1228·1	13·18	38·96	40·99	14·96	12·19
3rd Hussars 6th Brigade, R.A. .. 9th „ „ ..	8th	1,434	2,065	18	86	86·13	1440·0	12·55	59·97	60·08	21·92	15·27
2nd Batt., 25th Foot	9th	119	31	2	..	1·79	260·6	16·81	..	15·04	5·41	21·07
1st Batt., 2nd Foot ..	10th	885	1,297	11	29	51·44	1465·5	12·43	32·77	58·12	21·22	14·55
55th Foot .. .. 108th „	Over 10 years	1,205	1,189	10	29	41·36	986·7	8·26	24·07	34·32	12·53	12·70

Bombay.

Officers.

The average annual strength of the Officers serving in the Command was 364, the attacks of sickness among them were 252, the deaths in India, were 5, the number invalided was 54; the proportions given by these numbers are for attacks of sickness 692, for deaths 13·71, and for invaliding 148·36 per 1,000 of the strength respectively.

The deaths were caused, by enteric fever (2), remittent fever (1), hepatitis (2).

Women.

The average annual strength of the wives of the non-commissioned officers and soldiers was 1125; the admissions were 904, the deaths (in India) were 17. The proportions given by these numbers are, for admissions 803·6, and for deaths 15·11 per 1,000 of the strength respectively; both are more favourable than the rates of the preceding year. The greatest number of admissions is that for diseases of the *febrile group*, 216 being for ague; diseases of the *digestive system*, are in the proportion of 167· per 1,000 of the strength (that for non-commissioned officers and men being 214·4 per 1,000). The cases of abortion were 10, and (not included in the admissions stated above) there were 289 admissions for childbirth. The deaths (which occurred in India) were due to smallpox (1), remittent fever (1), cholera (1), apoplexy (2), diseases of the heart (2), pneumonia (2), dysentery or diarrhœa (5), debility (1); two deaths were consequent on the puerpural state.

Children.

In an average annual strength of 2,389 children of non-commissioned officers and men, there were 1,359 admissions into hospital, and 102 deaths in India (exclusive of 5 deaths of premature children), being in the annual rates of 568·9, and of 42·70 per 1,000 of the strength respectively; the death-rate is 52·77 per 1,000 lower than that for 1875; this reduction is partly due to the comparative absence of cholera in the present year, but, mainly, to the much less fatal character of illnesses of diseases of the digestive system. The admissions for *eruptive fevers* were 20 in number, for *enteric fever* 5, for *paroxysmal fevers* 284, for *cholera* 1. As in the preceding year there was no admission for *phthisis*, but for *mesenteric tabes*, there were 11 admissions. *Diseases of the nervous system* gave only 18 (or adding those returned in another order under the head of *teething*), there were 118 admissions. *Diseases of the eye*, caused 190 admissions, of which all but 1 were from *conjunctivitis;* the rate of admissions for diseases of this order, 79· per 1,000, is more than three-fold higher than that for the men. *Diseases of the digestive system* (exclusive of teething), caused 248 admissions, being in the rate of 103·8 per 1,000 of the strength. For *general debility* there were 128 admissions. The deaths were due to enteric fever (1), simple continued fever (4), paroxysmal fevers (5), hereditary syphilis (1), tabes (2), anæmia (1), hydrocephalus (1), convulsions (14), laryngitis (1), bronchitis (6), pneumonia (4), atelectasis (1), teething (22), enteritis (1), dysentery (6), diarrhœa (18), ulceration of bowel (1), jaundice (1), debility (6), burn (3), drowning (1), suffocation (1).

SANITARY REPORT.

Surgeon-General Stewart reports:—

Barracks.—At Colaba, the old depôt barracks referred to last year have been abandoned, and the occupants removed to one of the new barracks vacated by Artillery.

At Baroda, the barracks are old, and defective in general construction.

At Poona, some of the old Ghorpoorie barracks are to be replaced by new ones.

At Nasirabad, of the three barracks occupied by the Royal Artillery, the old barrack is reported to have given a larger proportion of admissions from fever than either of the other two. This is attributed to defective construction.

At Deolali, during the trooping season, the barrack accommodation has to be supplemented by tents. *Bombay.*

At Ahmedabad, new barracks have been constructed.

At Deesa, the barracks are old and faulty as regards general construction.

Cells.—At Deesa, the cells are reported of insufficient cubic space, and are enclosed by a wall seven feet high which obstructs the breeze.

At Aden, the site of the garrison cells is reported too crowded by other buildings, especially by the Native General Hospital with its outhouses.

Guard Rooms, Aden.—At the main pass, a new guard-room was completed at the beginning of the year. At the Isthmus, the guard-room affords too little accommodation, the floor space per man being stated as 25·71 square feet, and the air space as 379 cubic feet only. The men have therefore to sleep in the verandahs. At Steamer Point, too, the amount of space per man in the guard-room has been reported as greatly deficient during the year, though less so than at the Isthmus.

At Baroda, also, the guard-rooms are represented as too small.

Drainage.—At Ahmednagar, the drainage pipes connected with Royal Artillery barracks are reported to be defective, requiring to be trapped where they communicate with the barracks, and to have their distant outlets moved further from the buildings.

At Aden, surface drainage at the Isthmus is said to be required.

Ventilation.—This has on the whole been satisfactory. At Nasirabad, in the single-storeyed Artillery barrack referred to above, the ventilation of the leeward room is reported defective, receiving the exhalations from the windward room.

Warming.—Artificial warming is not required at most of the stations in this Presidency.

At Aboo, wood fires are allowed during December, January, and February.

Lighting.—Complaints as to the lighting of the barracks are very general, the kerosine lamps referred to in last year's report not having been as yet supplied.

Flooring.—At some stations there are still objectionableearthen floors, as in the married quarters at Kirkee, Ahmednagar, and Kurrachi.

Ablution and Bath Accommodation.—On the whole this has been satisfacfactory. In the Infantry barracks at Ahmednagar the want of privacy in the arrangement for bathing is remarked upon by the Acting Deputy Surgeon-General.

Latrines.—The dry-earth system of conservancy is everywhere in use except at a few stations where dry earth is not available in sufficient quantity, and disinfectant powder has to be used. Difficulty is experienced in getting the men always to place earth in the pans before leaving the latrines.

Urinals.—The urinals are generally iron receptacles placed in detached erections of a temporary nature, freely ventilated.

Water Supply.—The water supply has generally been good and abundant. Macnamara's filters have not yet been furnished to the troops, but their purchase has been sanctioned.

At Nasirabad, the supply continues to be from the Dilwara well, and the quality of this single source has been suspicious during the year.

Dieting.—The rations on the whole have been very good. Beef is issued on five and mutton on two days each week, one pound per man, an amount which several medical officers think should be increased.

Cooking.—The usual Indian plan is generally adopted; at some stations Dean's apparatus is also in use, the cooks, however, do not like them, assigning as their reason that the fuel is insufficient.

Clothing.—The clothing is well suited to the climate.

Duties.—The usual routine of duties has not been prejudicial to the health of the troops. At stations where gymnasia exist, gymnastic exercises have been favourably reported upon.

Hospitals.—The position of the station hospital at Colaba is bad, being on low ground, and to leeward of, and shut in by, the Artillery barracks.

At Ahmedabad, one of the new Artillery barracks is being fitted up as an hospital.

At Wanowrie, the site and plan of the hospital are reported defective.

Bombay. During the year several minor improvements about this hospital have been carried out.

At Deolali, during the trooping season, the hospital accommodation is inadequate, and has to be supplemented by tents.

At Neemuch, the Artillery hospital has been vacated, and the sick received into the Infantry hospital.

At Mhow, a new female hospital for the cavalry has been built.

Venereal.—1. Under Bombay Act, No. 3 of 1867, sect. 1, lock hospitals exist at the following stations: Deolali, Ahmedabad, Dessa, Aden, Kurrachi, Poona, Kirkee, Ahmednagar, Belgaum, Mhow, Neemuch, Nasirabad.

2. In the ablution rooms at several stations a special closet, with a special supply of water, is set apart for private ablution.

3. There was nothing specially noteworthy regarding the prevalence of the disease during the year.

Section II. *India.*

On the Extent of Invaliding.

2,286 non-commissioned officers and men were invalided from India, being in the proportion of 38·98 per 1,000 of the strength, which is 7·26 per 1,000 men lower than the rate of the preceding year. For the Bengal Command the rate is lower by 4·63; for the Madras by 9·85, and for the Bombay by 14·2 per 1,000.

The classes and orders of diseases for which the men were invalided from the three Commands, are shown in the following Table:—

Orders.	Station	Invalids sent home from— Bengal.	Madras.	Bombay.	Invalids from India discharged the Service.
	Strength	37,147	11,132	10,362	58,641
	I. *General Diseases.*				
1	Febrile Group	82	10	48	..
2	Constitutional „	260	93	85	314
	II. *Local Diseases.* Diseases of the—				
1	Nervous System	87	43	22	48
2	Eye	16	..	10	35
3	Ear	12	2	8	25
4	Nose	..	1	..	..
5	Circulatory System	173	34	31	275
6	Absorbent „	..	3	..	1
8	Respiratory „	55	11	12	43
9	Digestive „	328	156	102	153
10	Urinary „	14	4	7	17
11	Generative „	6	2	3	5
12	Organs of Locomotion	9	3	5	26
13	Cellular Tissue	3	2	1	2
14	Cutaneous System	8	5	6	12
	III. *Debility*	248	102	132	207
	V. *Injuries.*				
2	Accidental	22	7	9	32
	VI. *Surgical Operations.*	3	..	1	7
	Total	1,326	478	482	1,202
	Ratio per 1,000 of Strength 1876	35·69	42·94	46·52	20·50
	Strength 1866–75	44·03	49·85	37·99	16·20

In the Bengal Command, diseases of the *febrile group*, give a materially higher rate of invaliding than in the preceding year; diseases of the digestive system are also in a higher rate. For diseases of the *circulatory system*, there is a decrease consequent on the smaller number of men sent home for palpitation. The most material reduction is for *debility*, which mainly determines the reduced rate for the Command.

The decrease in the rate of invaliding of the Madras Command on that of 1875 is contributed to in a small extent by the smaller number of men sent home for diseases of the *circulatory system*, but is mainly the result of the

India.

comparative infrequency of invaliding for diseases of the *digestive system.* A considerably larger number of men were invalided for *debility.*

For the Bombay Command the decrease in the rate of invaliding on that of the preceding year, is contributed to by nearly every group of diseases.

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men always ineffective from sickness in Bengal was 2,060, in Madras 561, and in Bombay 509.

The usual information, calculated from these numbers, is given in the subjoined Table:—

	Bengal.		Madras.		Bombay.	
	1876.	1866-75.	1876.	1866-75.	1876.	1866-75.
Ratio per 1,000 constantly Sick ..	55·46	56·13	50·40	60·02	49·12	54·43
Average sick Time to each Soldier..	20·24	20·59	18·39	21·91	17·94	19·87
Average Duration of each Case of Sickness	14·33	14·05	16·75	17·04	13·91	14·39

Section IV.

On the influence of Age on Mortality.

The ages of the Troops serving in India, arranged in quinquennial periods, and the deaths at each age, are shown in the following Table:—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.
Bengal	704	5	11,335	141	12,100	184	5,897	119	4,848	96	1,227	62
Madras	355	4	3,410	38	3,223	53	2,013	35	1,716	31	411	20
Bombay	145	3	2,931	35	3,505	40	1,784	18	1,438	29	341	15
Total	1,204	12	17,676	214	18,828	277	9,694	172	8,002	156	1,979	97
Ratio of deaths per 1,000 of Strength, 1876	9·98		12·11		14·71		17·74		19·50		49·01	
Ditto, 1866–75 ...	8·28		16·08		19·65		28·31		36·61		56·69	

XIV.—ON THE HEALTH OF THE TROOPS ON BOARD SHIP.

STATISTICAL REPORT.

Troops on Board Ship.

The troops embarked on board ship during the year, as shown by the returns received in the Army Medical Department, were :—

I. Corps, and Drafts for Corps, proceeding on service abroad	11,505
II. Corps returning from abroad	8,518
III. Do. or Detachments, passing by sea from one Command to another	4,378
IV. Invalids returning to England	2,361

I. TROOPS PROCEEDING ON FOREIGN SERVICE.

11,505 non-commissioned officers and men, giving an annual average strength of 994, embarked for service abroad during the year; amongst them there were 381 admissions into hospital, and 1 death, being in the ratios of 383·3 and of 1·01 per 1,000 of the strength respectively.

The classes and orders of diseases by which the admissions and the deaths were caused are shown in the following Table :—

Order.	Stations.	To all Stations Abroad.			
	No. of N.-C. O. and men Embarked.	11,505			
	Average *Annual* Strength	994			
	Diseases.	Admitted.	Died.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.
	I. *General Diseases.*				
1	Febrile Group	29	..	29·2	..
2	Constitutional „	95	..	95·6	..
	II. *Local Diseases.*				
1	Nervous System	5	..	5·0	..
2	Eye	11	..	11·1	..
6	Absorbent System	11	..	11·1	..
8	Respiratory „	20	..	20·1	..
9	Digestive „	68	..	68·4	..
10	Urinary „	34	..	34·2	..
11	Generative „	2	..	2·0	..
12	Organs of Locomotion	2	..	2·0	..
13	Cellular Tissue	13	..	13·1	..
14	Cutaneous System	49	..	49·3	..
	III. *Conditions, &c.*				
	Debility	4	..	4·0	..
	V. *Injuries.*				
2	Accidental	38	1	38·2	1·01
	Total	381	1	383·3	1·01

Troops on Board Ship.

The rate of admissions is 50·7 per 1,000 lower than the corresponding one of the preceding year; that of deaths is nine-tenths lower.

7,747 of the troops embarked proceeded to India, and 3,758 to other Commands; the admission rates for the two bodies are 357·6 and 460·3 per 1,000 of the strengths respectively.

General Diseases.—*Diseases of the Febrile Group.*—The rate of prevalence of diseases in this group is nearly the same as that of the preceding year; one admission only was due to an eruptive fever. Enteric fever, caused one admission on the voyage of H.M.S. Malabar to Bombay.

Diseases of the Constitutional Group, are in a higher rate of prevalence than in 1875, owing mainly to an increase in the numbers of admissions for syphilis.

Diseases of the Respiratory System.—The rate of admissions is less than one-fourth of the corresponding rate of 1875; no death was due to any disease in this order.

Injuries.—*Accidental.*—The death in this class was from a fracture of the skull.

II. Troops returning from Abroad.

The number of effective troops embarked for England, from stations abroad, was 8,518 non-commissioned officers and men, giving an annual average strength of 713. The admissions into hospital were 297, and the deaths 6, being in the ratios of 416·5 and of 8·41 per 1,000 respectively; the first is a little lower (50 per 1,000) than the corresponding rate of the preceding year, the death rate is 3·57 per 1,000 men higher.

The admissions and deaths in the various classes and orders of diseases are shown in the following Table:—

		From all Stations Abroad.			
	No. of men Embarked	8,518			
	Average *Annual* Strength ..	713			
Order.	Diseases.	Admitted.	Died.	Ratio per 1,000 Admitted.	Ratio per 1,000 Died.
	I. *General Diseases.*				
1	Febrile Group	97	1	136·0	1·40
2	Constitutional „	27	..	37·9	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	2	..	2·8	..
2	Eye	5	..	7·0	..
6	Absorbent System	6	..	8·4	..
8	Respiratory „	35	4	49·1	5·61
9	Digestive „	49	..	68·7	..
10	Urinary „	7	..	9·8	..
11	Generative „	3	..	4·2	..
13	Cellular Tissue	8	..	11·2	..
14	Cutaneous System	20	..	28·1	..
	III. *Conditions.*				
	Debility	11	..	15·4	..
	IV. *Poisons*	3	..	4·2	..
	V. *Injuries.*				
2	Accidental	24	1	33·7	1·40
	Total	297	6	416·5	8·41

GENERAL DISEASES.—*Febrile Group.*—The rate of admissions is two-fold higher than that of the preceding year. *Paroxysmal fevers*, caused nearly the whole of the admissions in this group; the death was due to remittent fever. *Troops on Board Ship.*

Diseases of the Respiratory System.—Most of the admissions in this order were on account of bronchitis, but the small number returned makes it probable that only the severest cases of the disease were included. Two of the deaths were caused by pneumonia, both being those of men returning from India; one death, attributed to pulmonary apoplexy, was that of a man returning from Mauritius.

Diseases of the Digestive System.—The rate of admissions is only fractionally different from that of the preceding year.

INJURIES.—*Accidental.*—The death in this order was by drowning.

III. TROOPS PROCEEDING BY SEA FROM ONE STATION ABROAD TO ANOTHER.

4,378 non-commissioned officers and men (white troops) were embarked, giving an average annual strength of 176. The admissions into hospital were 62, being in the proportion of 352·3 per 1,000 of the annual strength; 1 death occurred, being in the proportion of 5·68 per 1,000 men.

The classes and orders of diseases, by which the admissions were caused, are shown in the following Table:—

		White Troops.			
Strength embarked		4,378			
Average *Annual* Strength ..		176			
Order.	Diseases.	Admitted.	Died.	Ratio per 1,000. Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	19	1	107·9	5·68
2	Constitutional „	6	..	34·0	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	1	..	5·7	..
2	Eye	2	..	11·4	..
6	Absorbent System	2	..	11·4	..
8	Respiratory „	2	..	11·4	..
9	Digestive „	9	..	51·1	..
10	Urinary „	2	..	11·4	..
11	Generative „	2	..	11·4	..
12	Organs of Locomotion ..	1	..	5·7	..
13	Cellular Tissue	1	..	5·7	..
14	Cutaneous System	2	..	11·4	..
	III. *Conditions.*				
	Debility	1	..	5·7	..
	IV. *Poisons*	3	..	17·0	..
	V. *Injuries.*				
2	Accidental	9	..	51·1	..
	General Total ..	62	1	352·3	5·68

Troops on Board Ship.

FEBRILE DISEASES.—The death in this group was due to simple continued fever; in the course of the illness hæmorrhage from the bowels came on, and was the proximate cause of death.

IV. INVALIDS RETURNING TO ENGLAND.

The number of invalids embarked for England was 2,361, giving an annual average strength of 221 non-commissioned officers and men. There were 27 deaths amongst the invalids at sea; as in former years, they have been added to those of the troops in the various Commands from which the men were invalided.

APPENDIX.

APPENDIX No. I.

REPORT ON THE PROGRESS OF HYGIENE FOR THE YEAR 1876 AND PART OF 1877.

By F. de Chaumont, M.D., Surgeon-Major, Professor of Military Hygiene, Army Medical School, Netley.

During 1876 and the present year there has been continued activity in hygienic matters, although nothing of any special kind can be cited as making the period exceptionally remarkable.

The points I may select for remark are the following:—

I. Legislation.
II. The Work of Societies, &c.
III. Literature.
IV. Special Points of Hygiene.

In this last division I shall take up a few points of interest, so far as time and space allow.

I. *Legislation.*

On this point there is but little to be said. With the exception of a few amendments on the Public Health Act of 1875, the attention of the Legislature has been but little directed towards the subject of State Hygiene, the only Act of importance being the Rivers Pollution Prevention Act, which had been delayed from the year before. This Act provides for the prevention of four sources of pollution, viz., 1, putting solid refuse into streams; 2, passing sewage into streams; 3, poisonous, noxious or polluting fluids from factories; and, 4, solid or liquid matter from mines which is poisonous, noxious or polluting or interferes with the flow of the water. Various saving clauses are inserted, such as certain restrictions on proceedings under the third and fourth heads, so as not to interfere unduly with industrial interests, and also reservations for channels already chiefly used as sewers, provided the best means of purifying the effluent waters be adopted. Under the Act both tidal waters and the sea may, under certain circumstances, be deemed *streams*, for the purposes of the Act. The Act extends, with modifications, to the United Kingdom generally. A good *résumé* of its provisions, with explanations, has been published by Mr. A. Glen.*

A short Act of some importance was passed towards the end of the Session 1876-77, enabling proprietors, under certain circumstances, to charge their properties for the purpose of collecting and storing water for the supply of villages, &c.

Experience shows that several parts of the Public Health Act of 1875 require amendment, which will no doubt be carried out gradually. One point appears desirable, viz., an equalising of powers, and doing away with the distinction between urban and sanitary districts. As guides to the working and

* "The Law as to the Pollution of Rivers." By A. Glen. London, Knight and Co.

understanding of the law relating to public health, I may note the works of W. C. and A. Glen,* of Chambers,† of Saunders,‡ of Lumley,§ and others.

II. *Work of Societies, &c.*

The Congress at Brussels (in connection with the Exhibition of Sanitary Appliances and Life-Saving Apparatus) which took place in the autumn of 1876, afforded a good instance of the great interest in hygienic matters that has been awakened of late years. The Congress opened on the 27th September, under the auspices of the King of the Belgians, and lasted for eight days, during which time a number of papers were read and many objects of interest discussed. It was attended by a large number of persons from all countries, either directly or indirectly connected with hygienic questions. Among the subjects discussed were ventilation and hospital construction, water supply, help to the sick and wounded in time of war, amelioration of the condition of the labouring classes, &c.

The exhibition itself was a very extensive one, including contributions from most European countries. Although there was nothing presenting any very special novelty, yet most of the improved sanitary appliances were represented. The section devoted to ambulances, &c., was very complete, and has been reported upon in detail by Professor Longmore. In the French and German sections there were very complete plans and models, showing the new works for the drainage and water supply of the chief great cities, such as Paris, Berlin, Leipsic, &c. In the city of Brussels itself the improvement produced by an amended system of drainage is well seen, the sewage being no longer discharged into the Senne, but carried through the city by a magnificently constructed sewer, which the members of the Congress had an opportunity of personally inspecting. The entire absence of offensive smell was notable, and the arrangements for dealing with the storm-waters seemed ingenious and effectual.

One thing in the exhibition, that struck me as curious, was a whole bay in the German section devoted to anti-vaccination literature and statistics.

There was a very complete series of models, plans, papers, &c., on the subject of cremation, principally from Germany and Italy.

In this country the Society of Arts continues, by means of its meetings, conferences, lectures and publications, to do much towards advancing sanitation.

A new association has been started under the title of "The Sanitary Institute of Great Britain," the first meeting of which was held in July in the theatre of the Royal Institution in Albemarle Street, under the presidency of the Duke of Northumberland. An eloquent inaugural address was given by Dr. B. W. Richardson, F.R.S. The object of the institute is to diffuse as widely as possible information on sanitary objects, to hold meetings and congresses in various parts of the country, to examine and grant certificates of competency to surveyors and inspectors of nuisances, and to further legislation and State influence for sanitary improvements. Its first provincial congress takes place at Leamington in October next. Two similar associations have likewise been founded in France, "La Société Française d'Hygiène" and "La Société de Médicine Publique et d'Hygiène Professionelle."

At the meetings of other bodies, such as the British Medical Association, the Social Science Association, &c., the section of public health or State medicine forms a marked feature. At the meeting of the British Medical Association at Manchester this year (1877), there was an exhibition of sanitary appliances in connection with the Manchester and Salford Sanitary Association; this was filled with examples of the newest and most approved arrangements. At the forth-

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* "The Law of Public Health and Local Government," 8th edition. By W. Cunningham Glen and A. Glen. Knight and Co.

† "A Digest of the Law relating to Public Health and Local Government." By G. F. Chambers. Stevens and Sons.

‡ "The Public Health Act of 1875." By T. W. Saunders. "Law Times" Office.

§ "The Public Health Act of 1875," with copious Notes on. By W. G. and Edmund Lumley. London, Shaw and Sons.

coming meeting of the German association of medical men, naturalists, &c., in September, 1877, there will be a section devoted to general hygiene (*Gesundheitspflege*), and also one devoted to military medical and sanitary questions (*Militär-Sanitätswesen*).

III. *Literature.*

Numerous works have appeared on sanitary subjects, among which I may notice the following:—

"Handbook of Hygiene." By George Wilson. 3rd edition. (Churchill). This work has been enlarged and in great part rewritten; it gives an excellent *résumé* of the subject. In the preface the author pays a tribute to the memory of the late Professor Parkes, who first urged him to write the work, and revised the sheets of the first edition. This kindly assistance he would not allow him to acknowledge during his lifetime.

"Militär-Gesundheitspflege." (Roth and Lex). This great work approaches completion, as the final volume will be published immediately. Although styled a "Handbuch," it is really encyclopædic in its mass of information.

"Lehrbuch der Militär-Hygiene." Von Dr. C. Kirchner. II. Auflage. The first half of the new edition of this work has appeared; it seems to be considerably remodelled and extended. The former edition was a close imitation of the Manual of Professor Parkes.

"Ueber Entwickelung und Gestaltung des Heeres-Sanitätwesen der Europäischen Staaten, von militärisch-geschichtlichen Standpunkte." Von Emil Knorr, Hauptmann. Hanover, 1877. Three parts of this work have appeared. It proposes to give a history of the rise and progress of the medical departments of armies in all countries, from the earliest period to the present time.

Hirt. L. "System der Gesundheitspflege." Breslau.

Lacassagne, A. "Précis d'Hygiène, privée et sociale." Paris (Masson).

Pickler, W., and L. G. Kraus. "Compendium der Hygiène, Sanitätspolizei," &c.

Kraus, Glieb and Pickler. "Encyclopädisch Wörterbuch der Staats-Arzneikunde." Stuttgart. Third part of a large work.

Œsterlen. "Handbuch der Hygiene." Tübingen. 3rd edition.

Kramer. "Handbuch der Staats-Arzneikunde." II. Theil. Halle.

Becquerel. "Traité élémentaire d'Hygiène, privé et publique." Paris, (Asselin).

Hermant. "Aide-Mémoire du Médicin-Militaire, recueil de notes sur l'Hygiène des Troupes," &c. Paris (Delahaye).

Besides the above, a large number of works and papers have been published bearing on the hygiene of particular countries and armies, which it would be impossible to enumerate here.

Two small works, which have a melancholy interest for us, must not be omitted, since they were the last contribution of the late Professor Parkes to the subject he had done so much to develope—

"Public Health." By the late E. A. Parkes, M.D., F.R.S., revised by Dr. Aitken. (Churchill).

"On the Personal Care of Health," (by the same Author), issued by the Society for Promoting Christian Knowledge.

The first gives a *résumé* of what is necessary to secure the health of a community, and the second is a short but clear and useful tract on the subject of personal health, addressed chiefly to working men. Both are written in the simple and effective style that so eminently characterised his writings.

Many works have been published in different countries of a popular kind, either addressed to the general public, or to particular ages or classes. In this country, Dr. Overend Drewry has published a monthly journal entitled "Health," which seems likely to be useful in diffusing knowledge of the subject. It is a marvel of cheapness, each number of sixteen pages costing only one penny.

It is of course impossible to give anything like a complete list of works and

papers, but the above are some of the more important; others will be referred to under their special heads.

I may, however, call attention to two publications of some interest, viz., 1st. The specimen fasciculus of the Catalogue of the Medical Library of the United States. Formerly this was a part of the library of Congress, but its growing importance and special character has led to its being separated and placed under the direction of the Surgeon-General. It is already one of the most complete in existence, and the plan of the catalogue is an admirable one. In one alphabetical list it gives both authors and subjects, distinguishing them by different types, and by means of cross references it also serves the purpose of a *catalogue raisonné*, thus saving much time and labour to the inquirer.

2nd. The other publication is a bibliographical record of works and papers published during the year 1875, on sanitary science in all its branches, printed in the "Deutsche Vierteljahrschrift für öffentliche Gesundheitspflege," VIII. Band, IV. Heft, 1876. It appears to be a very complete *résumé*, and most valuable for reference, The German journals are very copious in their bibliographical lists, much more so than any of ours; and in this point, as in others, they are being followed by the Americans, as may be instanced by the bibliography of cholera at the end of the report on the cholera of 1873, compiled by Dr. J. Billings.

IV. *Special Points of Hygiene.*

1. *Water.*—On the subject of water a good deal of writing and controversy has taken place, as usual without much elucidation of the most important points. The most important publications have been Wanklyn's "Water Analysis," 4th edition, and a new edition (3rd) of Sutton's "Volumetric Analysis." The latter contains the best and most detailed account of the Frankland-Armstrong process for determining the organic nitrogen and carbon in water. As has been stated before, this process is quite out of the question for military or naval medical officers, and can only be carried on in well-appointed laboratories. At Netley we do not teach it, but adhere to the ammonia process of Wanklyn and Chapman. With regard to the latter, it must be understood that it is not held to be perfect, but that practically it is the best we have for the determination of nitrogenous matter. In the words of Hassall, "a good water will appear good, and a bad water is not likely to escape detection" ("Food and its Adulterations," 1876). Wanklyn ("Sanitary Record," 1877) gives an analysis of a deep well water at Richmond which contained 1·02 free ammonia, and 0·03 albuminoid ammonia. In spite of the large amount of free ammonia he puts this in his first class of waters, with the rider that it might prove dangerous by favouring vegetable growth if kept. In the new edition of Wanklyn's book, the only points regarding the ammonia process that are at all altered are, 1st, the practical discarding of the sodium carbonate solution in distilling for the free ammonia; Wanklyn says it is generally not necessary, especially in hard water; 2nd, a statement that with suitable apparatus the albuminoid ammonia can be determined upon 100 cc. of water, the Nesslerising being done to $\frac{1}{1000}$ of a milligramme. For this purpose the apparatus requires to be small, and particularly the ammonia glasses, which are cylinders 10 centimeters (4 inches) high, and 1·5 centimeters ($\frac{3}{5}$ of an inch) wide. In these glasses it is said that the difference between $\frac{1}{1000}$ and $\frac{2}{1000}$ of a milligramme of ammonia can be easily recognised. At Netley we always combine a determination of the oxidisable matter by permanganate with the ammonia processes, and by that means get information of more value than from either process alone. With respect to the mineral constituents, Mohr's new process for the determination of carbonates in drinking water is a very elegant one. It is founded on the fact that the presence of carbonate imparts a certain alkalinity to the water, which is readily detected by the use of cochineal. The introduction of this substance instead of litmus is a great advantage, it is much more sensitive, and gives much sharper indications; its natural colour is a carmine red, which is at once changed by acids to a yellow or reddish yellow. The change is sharp and sudden, with no return of colour, as is the case with litmus. The solution is prepared by bruising a little of the commercial cochineal in water which has been gently heated, adding a little alcohol and filtering. For the process a standard solution of sulphuric acid is

prepared by dissolving 4·9 grammes (by weight) of pure H_2SO_4 and diluting to 1 litre; 2 ccs. of this are equal to 10 milligrammes of carbonate of lime. If 700 ccs. of water be operated upon, 2 ccs. of standard solution used will represent 1 grain of carbonate of lime per gallon. The process is simple: 700 ccs. of the water are taken, and a few drops of cochineal solution added (*N.B.* the colour should not be too deep), the solution of acid is dropped in until the carmine red is changed to yellow; read off the ccs. used and divide by 2, the result is grains of carbonate of lime per gallon. A simple plan would be to take 350 ccs. of the water, in which case the number of ccs. of acid solution used would exactly represent the grains per gallon of calcium carbonate. Thus 350 ccs. of a water took 13 ccs. of acid to effect the change of colour; result, 13 grains per gallon of calcium carbonate. If by other means we have already determined the calcium carbonate (as by the hardness), we can see if the two results correspond; usually Mohr's process gives more, in which case the difference is sodium carbonate. Wanklyn says that the result of this process generally corresponds with the amount of insoluble solids in the water: it is generally a little less on account of the presence of a little silica and alumina; should it be more, the difference is sodium carbonate as above mentioned. In that case the excess must be calculated out as sodium carbonate, 1 cc. = 1·06 (instead of 1· as in the case of calcium carbonate). *Example.*—350 ccs. of a water took 17· of acid solution: the calcium carbonate was already known to be 12·; therefore the difference, $17 - 12 = 5$, is due to sodium carbonate; $5 \times 1{\cdot}06 = 5{\cdot}3$ grains per gallon of sodium carbonate. Of course potassium carbonate might be present, but it is rare in drinking waters: its factor would be 1·38.

In estimating the solid residue of water, Wanklyn recommends the use of 70 ccs. only, dried over a beaker-glass of water; this, he says, evaporates in one hour. So small a quantity, however, requires a very delicate balance. He does not think a high temperature necessary, but contents himself with a heat so obtained, being something under the boiling point of water.

With regard to the search for poisonous metals, the qualitative test is really all that is necessary for hygienic purposes, and the plan suggested by Dr. W. A. Miller is a very good one. Lead and copper can be recognised in very small quantities by means of a solution of ammonium sulphide, which will produce a dark coloration of sulphide of the metal: if the water be then acidulated with hydrochloric acid without the dark colour disappearing, we may be certain that lead or copper is present. It is unnecessary to differentiate them, as they are both poisonous. Should the acid clear up the water, the sulphide has been iron only. This may be easily converted into a quantitative test by using standard solutions of the metals, and comparing the depth of tint produced. Water containing $\frac{1}{10}$ of a grain per gallon of either lead or copper ought to be rejected, according to Wanklyn: I should be inclined to put the limit at $\frac{1}{20}$: of iron $\frac{1}{5}$ grain should be the limit, $\frac{2}{3}$ giving a distinct chalybeate taste. It is not quite certain how much copper would be poisonous, but it is well to be on the safe side. It is stated that the miners in the desert of Attacama (South America) prefer the water from the neighbourhood of the mines to that brought up in skins from the wells near the sea, on account of the disagreeable taste imparted to the latter, although the former contains enough of copper to give it a green colour. It is true that they use it chiefly for making coffee which may perhaps neutralise the effects.

On the influence of water upon lead, some investigations have been made by Mr. Pattison Muir, who finds that lead is easily dissolved by water containing nitrates—also chloride or sulphate of ammonium. Carbonates, sulphates and chlorides of other bases greatly diminish the solvent action of water on lead, but water charged with carbonic acid under pressure is a very active solvent. Hence, perhaps, the danger of aërated waters in contact with lead.

Zinc is a metal that must now be looked for, as there is no doubt that its presence does occur in water kept in so-called galvanised iron vessels. If potash or soda be added to water, and then sulphuretted hydrogen, a white precipitate is formed of zinc sulphide. The presence of iron, lead or copper, masks this, however; in case of their presence the water should be evaporated to dryness, the residue treated with solution of potash or soda, and then with sulphuretted hydrogen; a white precipitate indicates zinc.

The microscopic examination of water has not yet had sufficient attention paid to it, but it is beginning to be more resorted to. I may note a good paper on the subject by Dr. C. O. Harz, "Zeitschrift für Biologie," XII. Band, I. Heft. This method of inquiry (which seems to have been less used abroad even than in this country) is likely to lead to more useful results than chemical methods, or perhaps it would be more correct to say that chemical methods cannot be expected to produce results sufficient for hygienic purposes without the help of microscopic examination.

Among the War Office Circulars issued in 1876, was one (Clause 82) which dealt with the question of the chemical analysis of potable waters, directing that water should be analysed at stations when proper means were provided, and that, if the opinion of the Professor of Hygiene was desired, samples should be sent to Netley. The consequence of this order has been to throw a great amount of extra work upon our laboratory at Netley, for it has resulted in *all* the samples being sent there. This was certainly not contemplated when the circular was issued. The following Table gives the chief points of the analyses of 139 samples of water examined between June, 1876, and September, 1877. It has been drawn up from our laboratory records by Surgeon J. L. Notter, M.D. (Assistant Professor of Hygiene), by whom a large number of the analyses were made :—

k	Trace ..	None ..	Tr	Large .	Is imperfectly filtered	90
	Trace ..	None ..	Tr	Trace..	Impurity probable vegetable; filtration advisable.	91
	None ..	None ..	Nc	None ..	The presence of sulphuretted hydrogen is enough to condemn this water. The sample was sent in a dirty jar with an old cork.	92
	Large ..	None ..	Tr	None ..	Imperfectly filtered. The albuminoid ammonia being in excess.	93

No.	Station.	Source.	Qualitative Tests.								Chlorine.	Remarks.
			Lime.	Chlorine.	Sulphuric Acid.	Nitric Acid.	Nitrous Acid.	Ammonia.	Phosphoric Acid.	Organic Matter by Gold Chloride.	Grs. per gall.	
6	Colchester ..	No. 1 Well, E and F Lines	Marked	Very marked	Marked	In very large quantity	None ..	Slight trace	Present	No reaction	4·330	Suspicious.
7	„ ..	No. 2 Well, ditto	Marked	Very marked	Marked	In large quantity	Very large	Slight trace	Present	No reaction	4·320	Bad.
8	„ ..	No. 3 Well, ditto	Marked	Very marked	Marked	In large quantity	None ..	Slight trace	Present	Slight blackening	3·820	Very suspicious.
9	„ ..	No. 4 Well, ditto	Marked	Very marked	Marked	In large quantity	None ..	Slight trace	Present	Slight pink .	3·820	Very suspicious.
10	„ ..	No. 5 Well, ditto	Marked	Very marked	Marked	In large quantity	None ..	Slight trace	Present	Slight blackening	3·580	Very suspicious.
11	„ ..	No. 6 Well, ditto	Marked	Very marked	Marked	In large quantity	Very large	Slight trace	Present	Shot pink ..	3·420	Bad.
12	„ ..	No. 1 Well, D Lines	Marked	Very marked	Very marked	In large quantity	None ..	None ..	Present	Marked blackening	2·820	Rather suspicious.
13	„ ..	No. 2 Well, ditto	Marked	Marked	Very marked	In large quantity	None ..	None ..	Present	Marked blackening	2·580	Rather suspicious.
14	„ ..	No. 3 Well, ditto	Marked	Marked	Very marked	In large quantity	None ..	None ..	Present	Very marked blackening	2·820	Very suspicious.
15	„ ..	No. 1 Well, C Lines	Marked	Marked	Very marked	In large quantity	None ..	None ..	Present	Very slight	2·820	Rather suspicious.
16	„ ..	No. 2 Well, ditto	Marked	Marked	Very marked	In large quantity	None ..	None ..	Present	Very slight	2·820	Rather suspicious.
17	„ ..	No. 3 Well, ditto	Marked	Marked	Very marked	In large quantity	None ..	None ..	Present	None ..	2·820	Rather suspicious.
18	„ ..	No. 5 Well, A and B Lines	Marked	Marked	Marked	In large quantity	Slight..	Very marked	Present	Very black..	2·580	Very bad.
19	„ ..	No. 6 Well, ditto	Marked	Marked	Marked	In large quantity	None ..	Slight..	Present	None ..	2·330	Rather suspicious.

Of the above analyses 125 were quantitative and 14 qualitative only (except the chlorine). Where a constituent has been sought for and none found, the word *nil* is written; where a blank is left, either the experiment has not been made or the result has not been recorded. The conclusions to be drawn are: 1st, That the generality of the waters is far from pure; indeed, if we were to accept rigidly Professor Wanklyn's limitation, barely half-a-dozen out of the whole could be passed as potable waters. 2nd, That the physical and qualitative tests on the whole give a very considerable amount of information, in many cases sufficient for hygienic purposes.

The column of remarks contains the substance of the report made on each sample.

At the Hygienic Congress at Brussels last year, the question of the purity of water was a good deal discussed. M. Gérardin (Inspecteur des Etablissemens Insalubres à Paris) gave a lecture on his method of determining the amount of dissolved oxygen in water, which he insisted upon as the only true measure of the purity of a drinking water. This consists in the use of hydrosulphite of sodium, in presence of the aniline colour known as "bleu Coupier"; so long as oxygen is present the blue colour is untouched, but when the oxygen is all absorbed by the reagent, the blue colour is discharged by the slightest excess. The solution of the reagent being titrated with copper sulphate, the amount of oxygen can be easily read off. The difficulty about the plan is that the reagent (the hydrosulphite) will not keep, but must be prepared fresh. M. Gérardin has, however, since seen reason to abandon his views to some extent, and to admit that water may exist with a good deal of oxygen and also a good deal of organic matter. He also insists upon the physical character of the *lustre* (*éclat*) of water, as indicating its degree of aëration.

Filtration.—On one point there seemed to be a pretty general feeling, and that was that the ordinary kinds of filtration were often very harmful, so much so that many chemists were inclined to discountenance filtration altogether. There is no doubt that under some circumstances filtration does harm, especially if a filter is kept for a length of time in use without cleansing or changing the filtering medium. The remarks on this point of the Commissioners in the "Sixth Report of the Rivers Pollutions Commission," bear upon the question when they note that in animal charcoal there are apt to be found myriads of minute worms, which pass out into the filtered water. In experiments at Netley I have seen facts that bore out this statement to some extent, viz., a tendency to the formation of low forms of life, chiefly vegetable, in water that had been passed through a charcoal filter. At the same time, this took place only after the water was kept for some time. On this point it may be remarked, that such a result could be partially obviated by great attention to cleansing, and by passing permanganate solution through the filtering medium. Also, that if the water is wanted for immediate use, the convenience and rapidity of charcoal filters, such as those of Major Crease, are very great. On the other hand, if the water is to be stored, especially in the tropics, there might be the danger referred to of the production of low forms of life. Such forms might not be hurtful of themselves, but we are yet in ignorance of how soon they might become so, therefore it is better to avoid them. Whether it is possible or not to prepare charcoal in such a way as to prevent such formations, has not yet been determined.

Mr. Gustav Bischof has investigated the question of filtration with reference to the use of spongy iron as a medium. In the "Proceedings of the Royal Society," No. 80, 1877, he has written a paper on "Putrescent Organic Matter in Potable Water," in which he shows that water, filtered through spongy iron, may be passed over meat (previously boiled to destroy organisms adhering to it) for weeks without inducing putrefaction, but that if the water be filtered through animal charcoal putrefaction is induced within a fortnight. If the meat is not previously boiled it putrifies in either case. On the above principles the spongy iron filter is formed, and it certainly has this advantage, that its component parts are entirely mineral throughout. The length of time during which the water is exposed to the filtering medium seems considerable, about twenty-two minutes, but Mr. Bischof thinks not only that this is necessary, but that in the case of impure waters it ought to be longer. Should this be the case, it would prove a drawback if a large quantity of water were required

at once. On the other hand, the filtered water might be stored in clean tanks or vessels, with but little danger of becoming impure if properly protected.

Numerous pamphlets and papers have been published bearing on the water supply of particular places, some of which contain interesting matter, but it would not serve any useful purpose to quote them here in detail. In the Indian Reports accounts of analyses of the waters of different stations are given, and I may notice particularly the Report of Dr. Lyon, Chemical Examiner to the Government of Bombay, which is very full on this point. Before leaving this subject, I may refer to an analysis I had an opportunity of making of the water of the Rakus Tal Lake, on the northern side of the Himalayan range. The sample was collected by Lieut.-Col. H. Knight, late 19th Regiment. It is considered to be a very pure water, although analysis did not prove it to be so. The quantity was very small, only 182 ccs., so that only a partial analysis could be made. It showed a good deal of flocculent matter in suspension, which, on microscopic examination, showed the following substances:—

Particles of sand.
Black particles of an undetermined nature.
Mycelium.
Large cells, with a double wall and granular contents.
Great quantities of minute colourless molecules, in a gelatinous matrix.
Spores in considerable number.
Large sporangia (like those of septaria).
Cotton fibres, much attenuated.
Linen ditto ditto.
No animal life.

The linen and cotton fibres were accounted for by the fact of the vessel in which the water was collected having been wiped out before use. The qualitative chemical analysis showed both calcium and magnesium well marked; nitric acid, a doubtful trace; nitrous acid, present; iron, a trace. The hardness was not determined.

Quantitative Analysis.			Grains per Gallon.
Volatile matter (by incineration)			9·333
Including	Total oxygen required for oxidisable matter	4·6510 Milligrammes per litre.	
	Oxygen for organic matter only	4·1670	
	Ammonia, free	0·5600	
	„ albuminoid	0·7000	
	Nitrous acid	1·3915	
Chlorine			3·827
Sodium (combined with chlorine)			1·672
Salts of calcium and magnesium, &c.			31·251
Total solids by evaporation			46·083

This water we should have been obliged to condemn as impure. Another sample, got from a neighbouring lake, Lake Manarasowar, was unfortunately lost in transit from the bottle being broken. Water from large deep lakes is usually purer than this; it would be interesting to know the cause of this impurity, which must be partly of animal origin, although chiefly vegetable.

At home, the success of the Loch Katrine supply to Glasgow has turned attention to lakes as a possible source of supply for other cities; in particular the proposed use of the water of Thirlemere for Manchester has excited much interest and not a little controversy. Mr. Wanklyn suggests that all mountain-waters ought to be examined very carefully for metallic contamination, especially when metalliferous strata abound, and he thinks London may have had a most fortunate escape in the collapse of the great scheme for bringing water to it from the lake district of Cumberland. In connection with this, a writer in the "Times" of September 5, 1877, who states that he is an old resident at Thirlemere, affirms that no resident on Thirlemere ever thinks of drinking the water of the lake.

On the question of the search for water, a treatise has been published by E. Spon, "On the Practice of Sinking and Boring Wells."

Much interest was caused this year by the attempt of Messrs. Meux to get water from the green sand at their brewery in London. After boring to more than 1,000 feet, the attempt had to be abandoned, as no water was found. It is still, however, believed by many that an ample supply could be got for London by means of artesian wells.

A good instance of the danger of shallow wells is given by Dr. Cameron in the "Dublin Journal of Medical Science." At Glenfarne Hall, co. Fermanagh, a much more impure water (organically) is obtained from the surface of the well than from the bottom; the surface water yielding 0·025 of organic nitrogen, against 0·006 at the bottom; the chlorine was also greater at the surface, although the other mineral constituents were greatest at the lowest depth.

2. *Air, Ventilation, &c.*—In my last report I referred to an examination I had made at St. Mary's Hospital, Paddington. Since that time extensive alterations have been carried out, and a second examination showed a marked improvement in the general condition. The Hospital was built upon a bad plan, with most of the defects of structure common to hospitals built before the last fifteen or eighteen years. Most of the wards had windows only on one side, whilst the few that had windows on opposite sides were large and broad, so that the advantage was to a great extent lost. The centre of the building is an immense space, containing the main staircase; it was hardly ventilated at all, but with it and adjoining lobbies and corridors, the most of the wards communicated by means of windows. The consequence was that it became a sort of well in which all the foul air of the building was mixed up, and from which it was redelivered into the wards. Its condition may be judged by the amount of of CO_2 in excess over the outer air ratio: this was—

Ground floor	0·439 per 1,000	or a mean impurity of 0·447 per 1,000, indicating a supply of 1,350 cubic feet of fresh air per head per hour, barely one-third of the necessary amount.
First ,, ...	0·370 ,,	
Second ,, ...	0·531 ,,	

After the improvements were carried out, the result of examination showed a mean impurity of only 0·026, indicating an almost unlimited supply of fresh air. Besides the bad shape and arrangement of the wards, they were encumbered with sinks and sculleries inside, which took up space and obstructed ventilation. The waterclosets also opened directly into the wards, and there was always a strong in-current through them. The improvements suggested were the following: The closing up of all communications between the wards and other parts of the house, except the doors, which were to be kept closed. The removal of all sinks, sculleries, &c., from the wards. The separation of the closets by means of ventilated vestibules, the closets themselves being in an annexe. The introduction of additional ventilators, such as Sheringham valves, in the outer walls, and ventilating tubes (known as Tobin's) in every part that was accessible. These points were carried out to the great improvement of the Hospital generally, although some difficulties were encountered, such as a tendency to stop up the ventilators on the part of nurses and patients, and a difficulty of keeping up the temperature in the winter months. The most marked improvement was shown in the amount of organic matter in the air, there being a diminution of 27 per cent. in the albuminoid ammonia, and a proportionate lessening of other constituents. The microscopic examination of the air was interesting, especially in the accident ward: this is a square ward, which had a dividing screen down the centre; beds were placed on each side of this screen. It was noticed that patients placed in certain of those beds got erysipelas, whilst those opposite did not. On examining the air, it was found that it was more impure there than in any other part, showing, in fact, that the patients were receiving only 1,560 cubic feet of air per head per hour, whilst in other parts they were receiving 2,500 and even 3,600. At that part, also, pus-cells were actually detected by the microscope. The reports, with a number of microscopic illustrations, have been printed and circulated by the Hospital Committee.

Another inquiry, conducted by me this year, was at University College Hospital, a building also in a very insanitary condition. In this case also curious results were brought out by the microscopic examination, especially in the atmosphere of the dirty-linen area, where not only pus was found in quantity, but also numerous fatty crystals apparently from greasy dressings. Bacteria were also found in large quantity, both free and in the zoogloeal form.

The rebuilding of the Hospital is spoken of, and it is much to be hoped that this may be carried out.

Another inquiry of great interest was undertaken by Mr. Netten Radcliffe, at the Manchester Royal Infirmary, also a building in the old style, in the centre of a crowded city. Mr. Radcliffe's report is most full and exhaustive, showing in the clearest way the defects of the existing structure. It is a most valuable document, well worth the attention of all who are interested in the subject. The building of a new infirmary is inevitable, the point in dispute at present being whether they shall rebuild on the existing site, or move out or town altogether. The latter seems to commend itself on many grounds, chiefly on account of the advisability of leaving the crowded atmosphere of the city, and also on account of the immense pecuniary value of the existing site, the price of which would enable a noble infirmary to be built out of town, and provide at the same time a receiving house in the town for emergencies.

There exist in Manchester two very good types of Hospitals, viz., the Clinical Hospital, chiefly for children, and the Children's Hospital at Pendleton; the former is small, but very well arranged; the latter contains about 80 beds, and is capable of extension, being on the pavilion plan. The heating apparatus is a propulsion arrangement, like those at Lariboisière and the new Hôtel-Dieu at Paris, by which it is said that the wards can be heated up to 80°F. with very little trouble.

In March last I paid a visit to some of the Paris Hospitals, for the purpose of seeing any alterations in ventilation or arrangement. At Lariboisière I found that during the previous winter one of those accidents had occurred which render artificial methods of ventilation so unsatisfactory. The floods, consequent on the overflow of the Seine, had undermined some of the piers supporting the basement and broken the propulsion apparatus; the consequence was that for a considerable time the ventilation arrangements were at a standstill. This hospital, large as it is, is insufficient for the wants of the quarter in which it stands; it is almost always full, and I was surprised to find that, yielding to the pressure of applications, they had placed a third line of beds, end to end, in the centre of the wards in several instances, thus to a large extent neutralising the good effects of the pavilion system. Such a proceeding is wholly retrograde, and cannot be too strongly reprehended. At the new Hôtel-Dieu the general plan is much the same as that of Lariboisière, and reproduces most of its defects. There is less space around the building than is desirable (a defect, however, inseparable from its situation in the heart of Paris), and the centre court has a somewhat crowded appearance, a good deal being sacrificed to a pretentious *cour d'honneur*. The closet arrangements do not seem to be on the best plan, not being sufficiently shut off from the rest of the building, and the so-called *salles d'isolement* are entirely misnamed, not being isolated in the least. The ventilation is carried on by a pumping apparatus, the air being drawn down a lofty shaft, carried up the end of the building. Although the building is a great improvement on the old building it is to replace, it still leaves much to be desired as a model of hospital construction.

On the subjects of ventilation, warming, construction, &c., the following works have been published:—

Bosc, Ernest, "Traité complet, théorique et pratique, du chauffage et de la ventilation des habitations particulières et des édifices publics. Paris, A. Morel & Cie.

"Hospital Plans, Five Essays relating to the Construction, Oganisation, and Management of Hospitals," contributed by their authors for the use of the Johns Hopkins Hospital of Baltimore. Baltimore, Wood and Co.

Eassie, W. "Sanitary Arrangements for Dwelling-houses." Smith and Elder.

Leeds, L. W. "A Treatise on Ventilation." New edition. Philadelphia, Wiley.

Drysdale and Hayward. "Supplement to Health and Comfort in House-building." London, Spon.

Peltzer, M. "Kriegslazareth-Studien." Berlin, Hirschwald.

Wolfhügel, Gustav, Dr. "Ueber die Prüfung von ventilations apparaten München." Druck von Mühlthaler.

Jansen, A. Contribution à l'étude de l'hygiène des hôpitaux militaires et des casernes. Bruxelles, H. Manceaux.

With regard to the external air, an important series of inquiries is being carried on in different directions. In Paris, at Montsouris, daily analyses of the air have now been made for some time, under the direction of M. Marié Davy; and lately, in London, arrangements have been made by the Meteorological Committee for the establishment of a section of sanitary meteorology, from which we may hope to derive useful information. At Glasgow, analyses of the town air are made three times a-week, by Mr. E. M. Dixon, B.Sc., in co-operation with the Medical Officer of Health. Two monthly reports have already appeared (for May and June, 1877), and the care with which they seem to be prepared is very commendable. It would be a great advantage if those observations could be carried on at other stations, both in this country and elsewhere, especially at our numerous foreign stations, where meteorological observations are already established. It is only by such multiplication of observations that we can hope to obtain data proper for tracing out the laws which govern the spread of disease. It would be necessary to combine microscopic with chemical analysis before all the required information could be collected. As regards the Glasgow observations, some of the points are curious and differ from those observed elsewhere. Thus, in the most crowded part of Glasgow (Calton) the mean nitrogen in the air, as free ammonia, was, for May, 0·067 milligrammes per cubic metre, and the nitrogen, as albuminoid ammonia, 0·081. Mr. Moss's results* in the neighbourhood of Portsmouth Hospital, gave 0·077 and 0·073 respectively, although it is a comparatively open space. Angus Smith, in London, found the nitrogen, as albuminoid ammonia, to average 0·124, and his mean of Glasgow air was 0·250; even at Innellan (Frith of Clyde) he found 0·112. In London I found, in damp and still air, 0·294 free and 0·432 albuminoid; and in dry, warm, breezy air 0·013 free and 0·421 albuminoid. The effect of wind in clearing the air is noticed by Mr. Dixon, and also the influence of rain-fall as deserving marked attention. As regards the CO_2 his results also differ greatly from those of Angus Smith, who found an average of 5·02 per 10,000 volumes in the Glasgow air, whereas the maximum given by Mr. Dixon is only 3·43, while the mean of all his observations is only 2·98 Assuming that the observations are equally accurate and under similar conditions, the difference shows the necessity for continuous inquiry into the whole question.

3. *Drainage, Sewage Disposal, &c.*—On these subjects much has been written, and a good deal of controversy has gone on in the different journals. The question of ventilation of sewers and soil pipes has been much discussed, different inventors keenly advocating their own systems. Of those the system of Banner has attracted some attention, and has been applied, among other places, to Guy's Hospital. The essential part of it is an uptake ventilating shaft from the soil pipe, surmounted by an aspiratory cowl; a current of air is established, either through a trap below or by drawing air down another shaft furnished with a cowl acting the reverse way. Other inventors have suggested arrangements to accomplish the same end. Professor Macdonald has constructed a very ingenious cowl, called a twin-fan ventilator, which establishes and keeps up a double current in a shaft, and may be used either for house or sewer ventilation, or on board ship for ventilating between decks or in inaccessible parts of the ship.

Professor Frankland ("Proceedings of the Royal Society, 1877"), has made some ingenious experiments with a view of throwing some light on the condition of the air in sewers. His object was to ascertain how far it was possible for solid or liquid particles to be scattered into the air from the sewage as it flowed along. By using a solution of a salt of lithia he was able to detect very minute quantities by means of the spectroscope. The results found were, that, by agitating the water mechanically to a much greater degree than sewer water ever could be agitated under any circumstances, it was not possible to scatter the liquid into the air sufficiently to be detected even by spectroscopic tests. On the other hand, when gas was generated in the liquid, as by the artificial production of carbonic acid, so as to simulate the conditions of putrefaction,

* I have reduced these and the other observations to *nitrogen*, to correspond with Mr. Dixon's figures.

lithia was at once detected in the air. This is an additional proof of the dangers to be apprehended from the retention of sewage in drains and cesspools, and an additional argument, if any were needed, for its speedy and instant removal from the neigbourhood of habitations.

The great works going on for the improvement of the city of Paris in the matter of water supply and sewerage are described in detail in the three large fasciculi, published by the house of Gauthier-Villars, "Sur l'assainissement de la Seine." As is well known, the sewers of Paris do not receive the excreta of the population, but merely the surface or slop waters, street washings, &c., yet this liquid is of value, and is now disposed of by means of irrigation over the peninsula of Gennevilliers. This land is also partly watered by the liquid from the nightsoil proper. This last is still received into cesspits, which are emptied periodically and the produce removed for manufacture into poudrette. For drinking, the use of the Seine and the Canal de l'Ourcq are now almost quite given up, the water of the Vanne being employed. An abstract of the recent measures was published in the "Annales des ponts et chaussées," and has been translated into English by Mr. R. Manning. This translation (which also refers to the "Assainissement de Berlin") is not very well done, and contains some errors (perhaps due to the printer) which make it not very easy to understand in some parts.

At home a report on the disposal of sewage in towns has been presented by the Committee appointed by the President of the Local Government Board. The Committee consisted of Mr. Rawlinson and Mr. C. S. Read. They have reported in some detail, with plans, on the manner of sewage disposal in the chief towns in England, and in some of the continental towns. The conclusions arrived at by the Committee are given in page 12 of the Report and may be summarised as follows:—

(1.) Scavenging, cleansing and sewering are necessary.
(2.) Retention of refuse and excreta in cess-pits and middens is condemned; even the pail and dry earth systems are merely palliations, although they may be tolerated in small and isolated places.
(3.) Sewering and draining of towns are a prime necessity, both for cleansing and for lowering and preserving from pollution the subsoil water.
(4.) Refers to pollution of rivers and streams (provided for in Act of 1877).
(5.) Considers existing modes of treatment of sewage by deposit and chemicals in tanks more or less of a failure, but that they effect some good and are susceptible of improvement.
(6.) None of the manufactured manures from town refuse pay the cost of production.
(7.) Town sewage may be best disposed of by irrigation over land.
(8.) Irrigation is not possible everywhere, therefore other plans must be admitted.
(9.) Discharge into the sea may be allowed provided no nuisance is caused.

Among the plans not noted in this inquiry is that carried out in Manchester, on the plan of Mr. Fryer. This deals with all the town refuse; the coarser parts, such as fragments of pottery, bits of glass and metal, &c., are burnt to slag in a furnace, which he calls the *Destructor:* the vegetable refuse, condemned food, &c., are reduced to charcoal in another apparatus called the *Carboniser*, and the night-soil proper is concentrated in the *Concretor* (without loss of ammonia) to a small bulk, which is valuable as manure. The slag from the first process is ground and, along with lime, made into mortar. The plan is well spoken of in Manchester, and, if it succeeds, it certainly gets rid of everything in a very effectual way.

The Report of the Committee, above referred to, speaks of the Liernur system of sewage in a very disparaging way, more so, I think, than the existing evidence warrants. In a visit paid to Holland last autumn I had an opportunity of seeing the system in work at Leyden, and had it explained to me by the kindness of the late Professor Boogaard. Although applied to a small portion of the town it seems to be very effectual, and, from what I was told, has apparently abolished enteric fever in that district. With regard to smell, which has been complained of, I was present in some of the closets at the moment the contents were sucked away by the apparatus and there was not the smallest odour. I

also saw the material passed from the main receiver into the casks for sale, and there was no odour even there, on account of the ingenious method employed. Some difficulty has certainly been experienced in disposing of the material in the semi-liquid state, but at Dordrecht it is made into *poudrette*, apparently at a profit. The Committee dwell upon the expense, which they state, on the authority of the Director of Works at Amsterdam, to be about six or seven shillings per head per annum, including interest on the original outlay. This is considerable, but by no means excessive if all that is claimed for the system, on sanitary grounds alone, is borne out in practice; it would amount roughly to a sixpenny or sevenpenny rate quarterly. In the meantime arrangements are actually being made for its further extension in Amsterdam itself, whilst the patent has been purchased for Austria and Hungary by the Vienna Joint Stock Agricultural Society, who consider it a success, both hygienically and financially. It certainly seems well adapted for a country like Holland, where a *fall* for drainage is almost impossible, and there are a good many places in this country similarly circumstanced. The Committee say they do not know any town in England where the apparatus, if adopted, would be other than a costly toy; I would cite such a town as Southport, in Lancashire, where the drainage fall is about 1 in 5,000, a difficulty that is being most ingeniously got over by the works at present constructing, but which might perhaps have been overcome even more effectually by the pneumatic system. The concluding paragraph of the remarks in the Report (p. 25) about the liability of the apparatus to get out of order are in direct opposition to the statements of the inventor, and certainly to some of the experience also. The last sentence is not very easy to understand: "The power of air and water to remove solids through pipes being " as their relative weights and velocity, and air is to water by weight, about as " 800 to 1."

Mr. Bailey Denton has published, under the title of "Sanitary Engineering," a considerable volume, the basis of which is a course of lectures on the subject delivered at the School of Military Engineering. It is copiously illustrated and deals with most of the subjects that come within the province of the engineer. The section on drainage is particularly detailed, and the whole forms a valuable book of reference for all persons interested in sanitary matters.

4. *Food, &c.*—The provisions of the Adulterations Act have been applied pretty extensively and with apparent good effect. There are still some points of difficulty connected with the detection of adulterations, but these are being gradually cleared up. One of the most difficult investigations has been the analysis of *butter*, so as to detect the introduction of foreign fats. None of the former plans were trustworthy, and accordingly, a few years ago, a process was introduced by Messrs. Angell and Hehner, in which they determine, by saponification, the relative proportions of volatile and fixed fatty acids, which they found to be a fairly constant ratio in real butter, and different from that of other fats. In the first edition of their work on Butter Analysis, they adopted the percentage of fixed acids in butter as 85, but in the 2nd edition (published this year) they put it at 87·5, the average of other fats being about 95. One great objection to the method was the length of time required (several hours) to complete the saponification, as this rendered it less easy for general use. Mr. Turner, the public analyst and health officer of Portsmouth, suggested an ingenious method which has got over the difficulty. Perceiving that it was the slow solution of the fats that delayed the saponification when water was used, it occurred to him to try alcohol, which he found quite successful, the saponification now taking minutes instead of hours, so that the process can be used by analysts without great expenditure of time. It seems to have been pretty generally accepted as fundamentally correct. The essential part of the process is the saponification of the fatty acids, the decomposition of the soaps with hydrochloric acid, the separation of the volatile acids by means of heat or boiling water, and the weighing of the fixed residue.

Bread.—In calculating out diets into which bread enters largely some difficulty is experienced in reconciling the statements in books with the actual results as found in practice. The chief points are these:—

(1.) How to reckon the weight of bread with reference to the length of time it has been baked, which involves the question of the average loss undergone in the process of cooling.

(2.) How to calculate the relative proportions of crust and crumb, and the ratio the composition of the one bears to the other.

These questions are very important as bearing upon the amount and quality of rations, and I have therefore made some experiments upon the Hospital ration bread as baked and issued at Netley. The following are the results as bearing upon the above questions :—

1. It has generally been understood that the weight of bread is to be reckoned as it comes hot from the oven, from which time it loses weight steadily until it becomes dried up. Of course the rapidity with which this takes place varies with the temperature, humidity and movement of the surrounding air, and the way in which the bread is baked. The average loss (as stated in the "Manual of Hygiene") is taken as follows :—

1st	24 hours	....	2·0 per cent.
In	48 „	....	7·8 „
„	60 „	....	11·0 „
„	70 „	....	14·0 „

At Netley the bread is baked in 2lb. loaves, each weighing over 900 grammes, up to 940 or 950. A batch of 800lbs. of dough is worked up into 21×19=398 loaves; of this oblong batch 4 are corner loaves, with four sides out of six crust; 76 are side loaves, with three sides out of six crust; and 318 are inside loaves, with only two sides (top and bottom) crust. This gives the following proportion :—

4 × 4 =	16
76 × 3 =	228
318 × 2 =	636
398)	880

2·21 = the average proportion of crust out of the six sides of the loaf, or a percentage (taken in this rough way) of 37 of crust. This does not represent the real percentage by weight, which will be considered afterwards. A new loaf (inside) baked at noon on June 30th, was found to weigh 873 grammes at 1 p.m. Supposing it to have weighed 900 at noon, it had lost 17 or nearly 2 per cent. in one hour. As it was not actually weighed when hot this cannot be taken as positive. On July 9th a new (inside) loaf weighed 946; when cold, in 2½ hours, it weighed 921, or a loss of 25, equal to 2·6 per cent., or about 1 per cent. per hour. The crust and crumb separated and broken up had lost 121, or 13 per cent. in 48 hours. Another (inside) loaf on July 10th, weighed, when hot at 1 p.m., 896 grammes; its changes of weight were carefully noted, and were as follows :—

			Loss, total.	Per cent.	Mean per cent. of loss per hour.
Weight at (July 10th).	1 p.m. (hot)	896			
	2 „	880	16	1·78	1·78
	3 „	875	21	2·34	1·17
	4 „	867	28	3·12	1·04
	5 „	864	32	3·58	0·89
	6 „	862	34	3·80	0·76
	7 „	862	34	3·80	0·63
	8 „	863	36	4·00	0·57
	9 „	860	36	4·00	0·50
Weight (July 11th)	3 „	847	49	5·47	0·21
		in 26 hours.			
(July 12th)	12 noon	819	87	9·72	0·13
		in 72 hours.			
(July 16th)	1 p.m.	785	121	13·82	0·09
		in 145 hours.			

There is thus a loss of 3 per cent. in the first three hours, that is during the cooling of the loaf, a result corresponding to that obtained from the previous experiment. 24 hours entails a loss of 5½ per cent., which is nearly doubled in 72 hours or three days.

An outside corner loaf, four sides crust, was weighed on July 10th :—

		Loss, total.	Per cent.	Mean per cent. of loss per hour.
Hot at 1 p.m.	841			
2 „	830	11	1·31	1·31
3 „	825	16	1·90	0·95
4 „	825	16	1·90	0·62
5 „	825	16	1·90	0·47
6 „	824	17	2·02	0·40

This loaf was rather under weight to start, but that does not invalidate the experiment. We see here that the loss of weight in cooling is only 1·9 per cent. instead of 3, and that in 5 hours it lost only 2 per cent., whilst the inside loaf lost 3·8, nearly double. When the crust and crumb were separated the loss (total) in 31 hours was 66 or 7·9 per cent., the actual loss after breaking up being, in 24 hours, 37, or 4·4 per cent.; of this the crumb lost 33, or 6·2 per cent., and the crust 4, or 1·6 per cent.

Another loaf, baked as a cottage loaf with crust all over, was also weighed.

Weight of cottage loaf hot:—		Loss, total.	Per cent.	Mean average per cent. of loss per hour.
(July 10th) 12 noon....	906			
1 p.m.	905	1	0·11	0·11
2 „	905	1	0·11	0·05
3 „	900	6	0·66	0·22
4 „	897	9	0·99	0·22
5 „	896	10	1·21	0·22
6 „	876	10	1·11	0·18

When crust and crumb were separated and broken up the total loss in 7½ hours had reached 18, or 1·99 per cent.; after 31 hours the loss was 66, or 7·3 per cent.; the actual loss, after breaking up, being, in 24 hours, 48, or 5·4 per cent.; of this the crumb lost 44, or 6·9 per cent., and the crust 4, or 1·95 per cent. These results are very accordant with the preceding ones, although there seems rather a sudden change at the third hour after baking. It is to be noted that, although this loaf was all covered with crust, the crust was thinner than in the case of the ordinary ration outside loaf.

From the above we find that the amount of crust has great influence on the weight, 1st, by preventing evaporation, and, 2nd, on account of there being originally less water in the loaf. An inside loaf, with only top and bottom crust, loses about 3 per cent. in cooling, and about 4 in the first 5 or 6 hours. An outside corner loaf (four sides crust) loses about 2 per cent. in cooling, and the loss is little greater at the end of 5 hours. A cottage loaf, all crust on the outside, loses only about ¾ per cent. in cooling, and only about 1 to 1¼ in 5 hours. Taking ration bread there is a loss of about 1 per cent. in weight in the first 5 hours for every side that is not crust. It is thus evidently advantageous that the ration should be well baked, 1st, that the soldier should get as much weight of food as possible, and, 2nd, that the loss of weight or drying should be delayed as long as possible, so that the bread may remain fresh and palatable.

2. The second question, as to the proportions (by weight) of crust and crumb, is one of great importance. It is laid down that the crust should not be less than 30 per cent., and certainly this is desirable, but it seems to be seldom attained. I have carefully weighed the crust of several loaves with the following results:—

An inside loaf (two sides crust) weighed an hour after baking, 873 grammes; the crust and crumb were carefully separated and weighed:—

Crust 174	This gave a percentage of crust	20
Crumb 696	„ of crumb	80
Total 870	Total	100

There was thus a loss of 3 grammes in the cutting up.

Another similar loaf weighed 946 grammes, hot; it was cut up and the crust separated and weighed after it had got cold:—

In cooling and cutting up it had lost 22 grammes.

Crust 137	This gave	14·8 per cent. of crust, and
Crumb 787		85·2 „ of crumb.
Total 924	Total	100·0

Another similar loaf, received 4 hours after baking, weighed 900 grammes. Crust and crumb separated gave :—

Crust	140	Percentage of crust	15·6
Crumb	757	„ of crumb	84·4
Total	897	Total	100·0

Again a loss of 3 grammes on breaking up.

We thus have three determinations of crust, viz., 20, 14·8, and 15·6, which give us a mean of 16·8 per loaf. As each of the three loaves had only 2 sides crust out of 6, we may reckon for each side of crust 8·4 per cent.

An outside loaf, with four sides crust, was weighed hot, and showed 841 grammes. After 6½ hours it was cut up and crust separated :—

Crust	254	Percentage of crust	31·5
Crumb	558	„ of crumb	68·5
Total	812	Total	100·0

A loss of 29 since baking.

In this case the proportion of crust per side is 7·9.

In the cottage loaf, which may be taken as having six sides crust, the weight, hot, was 906. The crust was separated 6½ hours after baking and the weighing gave :—

Crust	209	Percentage of crust	23·6
Crumb	679	„ of crumb	76·4
Total	888	Total	100·0

A loss of 18 since baking.

Here the amount per side would be much smaller, about 4 per cent., but the crust was much thinner than in the case of the regular ration loaf. Taking, therefore, the previous experiments we have :—

Percentage of crust per side from inside loaves	8·4 × 3	= 25·2
„ „ outside „	7·9 × 2	= 15·8
Total		5)41·0

Mean percentage per side = 8·2

From this we may get the mean amount of crust in the rations generally, starting from the proportions of the batch already mentioned.

4 corner loaves, 4 sides of crust each			16 sides.
76 side „ 3 „ „			228 „
318 inside „ 2 „ „			636 „
398 loaves			880 „

This gives (as before stated) 2·21 sides of crust. Multiplying by 8·2, as above, we have 2·21 × 8·2 = 18·12 per cent. of crust by weight. This is apparently very small compared with what is usually expected, and what indeed ought to be. It is evident that the baking is insufficient, or that the bread is baked in too large batches.

The next point to ascertain was the proportionate amount of water-free solids in the crust and the crumb :—

Percentage of water-free solids.

	Crust.	Crumb.
1st experiment	90·02	65·36
2nd „	93·30	60·60
3rd „	85·80	62·30
4th „	91·71	64·49
	4)360·83	4)252·75
Mean	90·21	63·19

From this we may get the mean water-free solids of a loaf :—

Percentage of crust	18·12 × 90·21 ÷ 100	=	16·346
„ of crumb	81·88 × 63·19 ÷ 100	=	51·740
	Total water-free solids	=	68·086
	Water	=	31·914
	Total		100·000

I next determined the nitrogen by the soda-lime process, and obtained the following results :—

Nitrogen per cent. in water-free solids.

	Crumb.	Crust.	
1st experiment	1·5100	(1·174)	In this case I found the tube had burst, so that there was loss.
2nd „	2·0315	20321	

I think it will be safer to take the second experiment, both because I am more satisfied of its accuracy, and also because of the accordance of the two results. Multiplying the above numbers (which are practically identical) by 15·8 we obtain the relative amount of dry albuminate, viz., 12·8 per cent. We thus have :—

$$\left.\begin{matrix}\text{Crust} & 16{\cdot}346 \times 12{\cdot}8 \\ \text{Crumb} & 51{\cdot}740 \times 12{\cdot}8\end{matrix}\right\} \div 100 = 8{\cdot}715 \text{ per cent.}$$

This is somewhat higher than the table given in the "Manual," but the per centage of water-free solids is also higher.

My determinations of the fat failed, and I had not time to repeat them. The ash was determined and gave the following :—

Crumb (undried)		1·958
Crust (do.)		1·984
	Mean	1·967

This seems rather high compared with published analyses.

Another point of some interest is the amount of acidity in bread. This has never been dealt with in a definite way and no rule has been laid down. The plan adopted was to digest a weighed quantity of crumb and of crust in a certain amount of water, say 10 grammes to 100 ccs., and then titrate with standard alkaline solution, using cochineal as the indicator. The results were stated as crystallised oxalic acid :—

	Crumb (undried).	Crust (undried).	
1st experiment	0·063	0·034	per cent.
2nd „	—	0·066	„
3rd „	0·057	0·057	„
Mean	0·060	0·052	„

Taking the proportion of crust and crumb, we have in a loaf :—

Acid of crumb		0·049
„ of crust		0·009
	Total per cent.	0·058

This is equal to 4·06 grains of crystalised oxalic acid in each pound of bread, or 16·24 per 4lb. loaf. In case it should be considered desirable to state it in terms of glacial acetic acid, the numbers would be :—

0·055 per cent.
3·85 grains per lb.
15·40 „ per 4lb. loaf.

This might be adopted provisionally as a standard for fresh bread.

The final results therefore are these :—

Water		31·830
Water-free solids		68·170
Albuminates	8·726	
Fat (adopted from published analyses)....	1·500	
Ash	1·967	
Carbo-hydrates (by difference)	45·977	
*** Acidity (as acetic acid)	0·055	
Total		100·000

There would be a clear gain to the soldier if his bread were more baked; he would get better weight, it would keep better, and would be more nourishing. On service the plan of preparing *pain biscuité* (as in the French army) might be advantageously adopted, it being decidedly more palatable and digestible than biscuit.

Connected with the question of food, two events have greatly excited public interest and attention, viz., the unfortunate termination of the Arctic Expedition and the Indian Famine, which is still in operation. The story of the former event has been told in full detail in several publications, and the voluminous Report of the Committee appointed to inquire into the causes of the scurvy that broke out contains a mass of most valuable information. The Report of the Committee was to the effect that the outbreak of scurvy in the sledge parties was due to want of lime juice. During the winter on board the ships the crews had received ample rations, containing a good supply of antiscorbutics, such as dried potato, compressed and preserved vegetables, pickles, raisins and currants, bottled fruits, and a daily ration of one ounce of lime juice. On the sledge parties all these were cut off except two ounces of preserved potato. The result was what had been foreseen by Sir Alexander Armstrong, and might have been confidently predicted by any one who had studied the question, namely, an outbreak of scurvy that proved fatal in four cases, seriously endangered the whole of the crews, and rendered the expedition a comparative failure. The work the men had to do was enormous, and in my evidence before the Committee I tried to calculate it out. The result was, of course, only approximate, but it showed that what was done was more than the rations consumed could supply in potential energy. On the whole, the inquiry has had the effect of placing the subject on such a solid basis that we are not likely to have a similar disaster again. At the same time, the evidence showed that there are still some unexplained points on the subject of scurvy which deserve careful investigation.

In the Report of last year reference was made to the views of Mr. Galloway on the importance of phosphate of potash in scurvy. A second edition of his pamphlet has been published with additional notes; it is, however, not more convincing than the former. Mr. Anderson (of Coventry) has published a pamphlet also advocating phosphates as the cure for scurvy; his contention is that lime juice cures because it renders the insoluble phosphates soluble, citric acid being a better solvent than any other. The theory is ingenious, but does not seem very probable.

The famine in Madras is important as vindicating the truth of the principles of diet already laid down from scientific inquiry. Sir Richard Temple assumed that it was possible to feed the people on a smaller amount than was given in the Bengal Famine, and accordingly only 1lb. of grain was given instead of 1½lbs., besides half an anna for the purchase of condiments. This amount was barely sufficient to maintain life in a state of rest, but was utterly inadequate for even a moderate amount of labour. The result was that, task-work being demanded of those people, they perished by thousands. The question was most ably and courageously discussed by Dr. Cornish, the Sanitary Commissioner of Madras, whose views have fortunately ultimately prevailed. The correspondence between him and Sir Richard Temple is well worthy of perusal. On this point Dr. Lyon, Chemical Examiner to the Government of Bombay, has furnished a very important memorandum on the work done and the diet supplied in the prisons of Bombay. The matter is most carefully treated, and the paper will form a valuable work of reference on the subject.

There are many other points of interest in several branches of hygiene which must however be deferred till a future time.

APPENDIX No. II.

LIST OF OPERATIONS PERFORMED AT THE ROYAL VICTORIA HOSPITAL, NETLEY, DURING THE YEAR 1876, WITH SHORT ABSTRACTS OF THE MORE IMPORTANT CASES.

By Surgeon-Major J. H. PORTER, A.M.D., Assistant Professor of Military Surgery.

Operations.	Number of Cases.	Disease.	Result.				Remarks.
			Successful.	Otherwise.	In Hospital.	Died.	
Amputations.							
Ankle joint, left, Parry's modification of Symes' method.	1	Caries of tibio tarsal articulation and tarsal bones.	...	...	...	1	See Case No. 1.
Symes', of the right foot ...	1	Ditto	1	...	...	...	
Forefinger, right hand	2	Contraction of forefinger, right hand.	2	...	...	...	
Excision of Joints.							
Left elbow joint	2	Caries and necrosis of condyles left humerus and articulating surfaces of radius and ulna.	2	...	...	...	See Cases Nos. 2 and 3.
Head of femur	1	Caries of head of right femur, which was dislocated on the dorsum ilii.	1	...	...	...	See Case No. 4.
Urinary Organs.							
Radical Cure of Stricture, Holt's	2	Stricture of urethra ...	2	...	...	...	See Remarks on Stricture of the Urethra.
Division of stricture	1	Ditto	1	...	...	...	
By dilatation	31	Ditto	29	...	2	...	
Puncture of the bladder ...	1	... ...	1	...	...	...	See Case No. 5.
Genital Organs.							
Tapping and injecting with iodine.	14	Hydrocele	14	...	...	...	
Symes', for fungus of testicle ...	1	Hernia of left testicle ...	1	...	...	...	
On the Anus.							
Removal by Smyth's clamp and actual cautery.	6	Hæmorrhoids	6	...	...	...	
Division of sphincter	8	Fistula in ano	8	...	...	...	
Removal of necrosed bone ...	3	Disease of bone (necrosis)	3	...	...	...	

Operations.	Number of Cases.	Disease.	Result.				Remarks.
			Successful.	Otherwise.	In Hospital.	Died.	
Tumours.							
Removal of	1	Fibrous, on chin	1	...	...	...	
Ditto	1	Parotid, left side	1	...	...	...	See Case No. 6.
By Coxeter's aspirator	1	Bloody tumour, right lumbar region.	1	...	...	...	
Ditto	1	Left scapula	1	...	...	...	
By Dieulafoy's	1	Left arm	1	...	...	...	
On the eye	1	For ectropion	1	...	...	...	
Ditto	1	Removal of lead	1	...	...	...	
On the Ear.							
Removal of polypus	1	Polypus, right ear... ...	1	...	...	...	
Miscellaneous.							
Removal of foreign bodies ...	1	Gunshot wound, left thigh, lodgement of missile	1	...	...	...	See Case No. 7.
Ditto	1	Right thigh, supposed fracture from gunshot wound	1	...	...	...	See Case No. 8.
Forcibly breaking down adhesions.	1	Gunshot wound, right arm, with deformity	1	...	1	...	
Ditto	1	Arthritis, left elbow ...	1	...	1	...	
Skin grafting	4	Gunshot wound of face ...	1	3	...	...	See Case No. 9.

Case 1.—*Amputation of the Foot for Disease of the Ankle Joint by Parry's Modification of Symes'—Death from Acute Tuberculosis.*

J. J., of the Royal Artillery, aged 23; a delicate-looking man, who had enjoyed fair health during his service of three years. One of his sisters died from phthisis, otherwise he had a good family history.

Admitted into Netley Hospital from Malta, on the 2nd of February, 1876, with the following history:—On the 18th of August, 1875, was assisting in drawing a handcart filled with iron shells, when his left foot turned suddenly in under him. At the time he suffered but little pain, and there was no reason to suppose anything had given way; however, the following day the ankle had become swollen, black, and painful, and he was admitted into hospital, being quite helpless, where he remained under treatment without benefit till he was sent home in January, 1876.

On arrival at Netley, his general health was fair, appetite good, and slept well. He was subject to occasional flushings of the face in the evenings; his temperature and pulse being at the same time somewhat above normal, but he had no hectic or night sweats.

The left foot, ankle, and lower part of the leg were much swollen and infiltrated, and about the ankle itself was a good deal of inflammatory redness; two openings existed at the back of the joint, giving exit to a discharge of an oily fluid mixed with sanious pus; on the introduction of a probe into either of them it could be passed freely in several directions, but without coming on bone; another opening was then made on the point of the probe passed under the skin, close to the internal malleolus, and through this, bare

and diseased bone was at once reached and there was a sinus extending across the joint. There being no other alternative but amputation of the foot, I performed Parry's modification of Symes' operation on the 14th of February. The bloodless method was adopted, which was followed by considerable oozing of blood and a great quantity of serum from infiltrated tissues.

The wound healed slowly, the patient being very weak; his temperature kept high, rising every evening.

On the 2nd of April the discharge had lessened very much, and the stump had acquired a very symmetrical shape; soon after this he was carried into the open air, the weather being fine. He seemed to progress favourably, complaining only of a slight pain in the back and some headache; both quickly disappeared, but returned again in a few days.

On the morning of the 14th of April he suddenly became very faint, changed colour, and turned almost black in the face; he was immediately placed in bed and lay in a very lethargic state for some hours. At 6 p.m. he had considerably improved, but had some return of the symptoms about 9. On the 15th and 16th he remained much the same, the temperature on the last day rising to 101°·6.

On the 17th he appeared much better, but towards the evening he relapsed into almost complete insensibility, from which he could be roused with much difficulty to answer questions and take the necessary stimulants. His speech seemed to be affected as it was very indistinct. During the day he passed his stools and urine involuntarily.

This state continued on the following day, when it was noticed that the stump appeared shrivelled and of a brawny unhealthy appearance. The discharge had almost completely stopped, and he complained of pain in the right knee.

On the 19th, the respirations became very hurried (35 in the minute); on auscultation loud rales were heard everywhere over the chest; the heart sounds were healthy. He had no cough. His urine had to be drawn off twice in the day. He continued for some days generally better in the morning, but becoming worse in the evening. The respiration continued hurried. There was some little cough but no expectoration. He was in so helpless a state that his nourishment had to be given by means of enemata. Profuse sweating set in at night, and the discharge from the stump became very offensive.

On the morning of the 23rd he appeared more intelligent, but very weak. Pulse 104, and intermittent at about every fourth beat; temperature 102·2. The discharge from the stump was extremely offensive. There was noticed some drooping of the left eyelid; the pupils were dilated but regular. At about 10 o'clock that evening he became bathed in a copious perspiration; pulse so quick and weak that it could not be counted. Temperature 104·4, and he was quite insensible. This state continued till about 4 o'clock next morning, when he became much worse, and at 5.30 expired.

Operation described.

Symes' amputation modified (by Deputy Inspector-General of Hospitals Parry, late A. M. D.).

Right foot—

Assistant holds leg on level with operator's chest.

Invert foot.

Insert knife in front of border of tendo Achilles, ¼ inch above its insertion; carry incision around the outer malleolus, ½ inch below its extremity, across instep to inner and upper border of the protuberance of the navicular bone.

Continue incision obliquely across plantar aspect of foot, down to the bone, in front of the pad of the heel, and round its outer border, and so connect it with the first point of incision.

See that all the tissues are divided to the bone.

The operator takes hold of heel flap by its outer aspect, dissects it back, divides the tendo Achilles close to its insertion, and so uncover the whole calcaneum.

The operator next dissects away the inner portion of the flap, keeping the edge of the knife close to the bone. This should be done by repeated short

careful incisions, so that the posterior tibial or other vessels may be left in the soft tissues of the flap untouched.

When the upper edge of the internal malleolus is reached the joint is opened, and the foot disarticulated.

Left foot—

Reverse order of incision.

Commence at protuberance of scaphoid and proceed to edge of tendo Achilles for first incision.

From scaphoid beneath the plantar surface of the foot to the same point for the second incision.

The rest as with the right foot.

Condition of Bones of Foot.

The entire cartilage over the lower end of tibia and fibula, including the joint between the two bones, is completely removed, a soft pulpy tissue covering the otherwise carious surfaces. This pulpy membrane is more extensive over the end of fibula. The disease does not appear to extend to any degree into the substances of the bones.

The superior articular facet of the astragalus, as well as the posterior calcaneo-astragaloid joint, is in the same condition as regards the removal of cartilage and substitution of it by the pulpy membrane.

The under surface of the tuberosity of the calcis, for the space of a two-shilling piece, is carious, but the caries does not extend deeply.

The disease appears limited to the above-mentioned region of the foot and ankle.

Post-mortem appearances.

The body, which had a general paleness of surface, was well nourished; cadaveric rigidity well marked.

On opening the calvarium no abnormal appearances were discovered; there was great congestion of the pia mater and large amount of cerebro-spinal fluid.

There was a lymphy exudation at the base of the brain, matting together the various nerves and blood-vessels; on separating the surfaces, sago-grain like granulations were brought into view. Clear fluid in the ventricles, with softening of commissural surface and well marked softening on central ganglia. There was no clot observed.

On opening the chest yellow purulent exudation observed in left sterno-clavicular articulation. The lungs did not collapse on opening into the pleural cavity. The pleural cavity of the right lung was thickened considerably, and studded with minute tubercular deposits. The left pleura not thickened. The right lung was much less crepitant than left, but both on section showed no uniform infiltration of miliary deposit. The heart was generally soft and flabby, the various valves were all competent.

The aorta presented no signs of disease.

The position of the abdominal viscera was normal. There was a tubercular exudation in localized patches upon the peritoneum covering the liver, which was normal as to shape. Minute tubercular deposits, similar to those in the lungs, studded the capsule. On section it was firm and fatty, with slight interlobular congestion. No deposit in the substance was detected.

The left kidney was somewhat larger than the right. The capsule was easily separated, showing a congested surface beneath; on section there were tubercular deposits seen scattered here and there, more numerous and somewhat larger in the right than in the left. Some were in a much more advanced state of softening than others.

The spleen presented no signs of any deposit to the naked eye, some, however, were discernible with the aid of a lens.

There was considerable gastric and intestinal congestion, and commencement of tubercular ulceration in the jejunum, Peyer's patches showed marked indications of increased vascularity. They were dark in colour with white deposits, no doubt of a similar nature to those elsewhere found. On the peritoneal surface also there was some tubercular deposit.

On examining the stump there was found considerable thickening of the periosteum and surrounding textures, and a considerable deposit of tubercle in

the thick dense tissues composing the cicatrix. The anterior edge of the bone was rough with a general thickening and condensation of bone texture; accompanying this there was great vascularity, but no evidence of scrofulous deposit.

Two Cases of Excision of the Elbow Joint.

Case No. 2.—T. W., a delicate looking lad, 15 years of age, belonging to the Duke of York's School.

Family history of phthisis, his father and an uncle having died of that disease.

In March, 1875, he had a sharp attack of rheumatism which affected the elbow and knee joints, confining him to bed for two months; at the end of which period the swelling of the joints had subsided, with the exception of the left elbow which remained swollen and painful.

In August, he was received into Netley Hospital for change of climate, his general health being impaired. The left elbow was uniformly enlarged, but there was no bulging of the synovial sac. There was slight pain in the head of the radius increased by rotating the hand. The forearm was slightly flexed, and the elbow one inch larger in circumference than the right.

His general health improved, but in October the opening of a sinus appeared on the inner aspect of the arm, about one and a half inches above the condyle, through which a probe could detect exposed bone; there was, however, no decided evidence as to the exposed bone being connected with the joint, and he was treated with tonics and nourishing diet, the joint being kept at rest, with a hope that the diseased bone might be thrown off.

There was very little change till the beginning of December, when the elbow became much enlarged, and, as compared with the sound one, was three inches larger in circumference. The skin over it had become pale and mottled, and cutaneous veins enlarged, but there was no great amount of pain.

On the 3rd of December he accidentally struck his elbow against a table, which set up active inflammation, and early in January, 1876, when all inflammatory symptoms had subsided, it became apparent that the joint was so extensively diseased that excision would be necessary.

On the 10th of January I excised the joint by the longitudinal incision, the limb being rendered bloodless with Esmarch's bandage, and the patient being under the influence of ether.

After the operation the limb was placed in a straight position on a firm pillow; no vessels were tied, and there was very little hæmorrhage.

On the 11th the lad was directed to flex his fingers, which he did with some difficulty but without pain; on the 15th of January, or fifth day after the operation, he flexed his fingers with ease, which were perfect in sensibility, and slight passive exercise of the forearm was commenced, so as to secure pronation and supination as well as flexion of the elbow joint.

These exercises were practised daily till the 8th of February, when he commenced the use of a 1lb. weight, suspended by a cord over a pulley, which he worked by a little help from the good arm.

His general health gradually improved, and on the 1st of March the wound of operation had quite healed, and the arm was daily becoming stronger.

On the 3rd of June he was discharged from hospital, being a few days less than five months since the operation. He could then perform the following motions: scrub and sweep the floor, lift a considerable weight, place his hand behind his back so as to button his trowsers, supinate or pronate the hand, extend the forearm, brush his hair, and feed himself with a fork. The motions of the shoulder joint were perfect as well as that of the wrist, hand and fingers. The sensation in the limb was similar to that in the sound one, and he possessed in every respect a useful limb, which would enable him to earn a livelihood.

Case No. 3.—Sapper G. S. in the Royal Engineers, 28 years of age, of healthy appearance with a good family history. In 1868, he struck his left elbow whilst mowing, after which it became swollen and painful; this passed off, but in 1870, when quartered in Bermuda, it again became affected, but

after suitable treatment the disease disappeared. In 1875, when quartered at Gibraltar, he again hurt it, since which time he was unable to use it, the joint having become swollen and painful on pressure. He was invalided to England, and arrived at Netley Hospital last December, when the joint was found much swollen and painful, but no symptoms to denote disease of the cartilages or bone were observed.

In April, 1876, suppuration set in, and several abscesses formed, which were opened in front of the joint. His health now became much impaired, and it was found, on examination, that the joint was implicated.

On the 2nd of May, I excised the joint by the longitudinal incision, the limb being rendered bloodless with Esmarch's bandage. The operation was followed by considerable oozing, necessitating the opening of the wound.

The day after the operation, movement of the fingers was commenced.

On the 7th of May, or fifth day after the operation, pronation and supination were commenced, and on the 12th, flexion and extension of the forearm.

On the 31st of May he used a 1lb. weight, suspended over a pulley, which was increased up to 4lbs. on June 15th.

By the 14th of July the wound of operation had completely healed, and feeling strong and well he attempted mowing, and cut down one hundred yards of grass, which, he says, he performed with little inconvenience.

With the exception of flexion of the forearm, all the motions of the limb are perfect, but in this he is daily improving, being able to feed himself with a fork and brush his hair; he can also button his trowsers, place his hand behind his back, and lift considerable weights.

In case No. 2 there was gelatinous disease of the joint, with caries of all bones.

In case No. 3 there was pulpy disease of the joint, and extensive caries of the humerus and ulna.

The amount of bone removed in both cases was about two inches.

Case 4.—Excision of the Head of the Right Femur.

The patient, an officer in the Royal Scots, aged 40; during the Crimean campaign he experienced great exposure, and on one occasion, after sleeping on damp ground, incipient disease of the right hip joint became apparent. From these symptoms he appears to have been relieved, but subsequently superficial necrosis of the upper third of the shaft of the femur set in, and a considerable portion of exfoliated bone was removed, leaving a large cicatrix on the outside of the thigh. He returned to his duties, served in China, the Mediterranean, and India till 1875, when in the latter command, after great exertion he became incapacitated for duty on account of lameness and intense pain in the hip joint. He was then invalided to Netley Hospital, where he arrived in August, in a most distressing and helpless condition, having suffered great inconvenience and torture during the homeward journey.

Perfect rest was now enforced, under which he greatly improved, but in March, 1876, after a severe rigor, a large abscess formed in the neighbourhood of the joint, behind the great trochanter; on this being evacuated, and the finger passed into its cavity, the head of the femur was found perfectly denuded of cartilage and resting on the dorsum ilii, having become dislocated from the acetabulum.

Excision of the head of the bone being the only prospect for saving his life, as the soft parts had become extensively infiltrated, hectic had developed itself, and his stomach was uncontrollably irritable, it was decided to perform that operation. This I did on the 30th of March by a vertical incision, about nine inches in length, behind the great trochanter.

There was no difficulty experienced in removing the head of the bone, neck and great trochanter, the lesser trochanter being left untouched, with the insertions of the psoas and illiacus muscles intact.

The operation having been completed, I applied to the opposite thigh the socket of Sir William Fergusson for enforcing counter extension, but on

attempting to arrange the bracket-splint of Mr. Erichsen, I found it impossible, as the knee joint had been so long flexed it had become fixed, and the straight splint could not be applied. This method of extension and counter extension had therefore to be abandoned.

The patient, already very weak, was now almost completely exhausted, in fact but little vitality remained, and for several hours it was doubtful if he would ever rally; with a view, therefore, of leaving him at perfect rest and try and restore nature, I placed the limb on M'Intyre's double inclined plane, well padded, in which it remained for two days.

On the third day he had fairly rallied, but expressed himself as feeling most uncomfortable, due to the arrangement of the bed, which consisted of two hair mattresses, on the top of which was placed a stretcher, the canvas of which was divided into five portions, the three centre ones being attached to the side poles by means of straps and buckles, so that one of them might be removed for the purpose of dressing the wound or using the bed-pan.

To relieve his discomfort, which he said consisted of a feeling as if he rested on the back of his head, left buttock and heel, I raised the stretcher, removed top mattress and replaced it by one consisting of three portions, the centre one of which had a hole ten inches in diameter cut in its centre.

The stretcher being replaced, his buttock fitted into this hole and removed all pressure from his back, on which a large bed sore had formed during the two days of his great prostration. The comfort of this arrangement was indescribable, but then came the question of extension of the limb; this I effected by a weight attached to the foot and suspended over a pulley adapted to an upright fixed in the floor at the end of the bed. The limb was supported on either side by sand bags, and the buttocks fitting into the hole in the mattress formed as it were the point for counter extension.

From this time forward he steadily improved. By means of the stretcher he was raised from the bed, the wound dressed as well as the bed sore, sheets re-arranged and the necessary utensils made use of.

On the 1st of May extension was removed and the limb simply supported by sand bags; on the 21st of May he was able to move the limb slightly; on the 10th of July the stretcher was shifted from under him for the first time, and with a little help he turned both legs out of bed.

On the 26th July he commenced to walk with crutches, in which he daily improved. The wound healed most steadily from the bottom, being simply dressed with carbolized oil.

His convalescence was retarded by the old wound reopening in consequence, no doubt, of a piece of bone being set free.

The limb, nine months after the operation, is about 2½ inches shorter than the sound one, but this great difference is in consequence of the knee being still slightly flexed.

There is no pain in or about the seat of operation, and when he stands erect he can lateralise and rotate the limb for several inches.

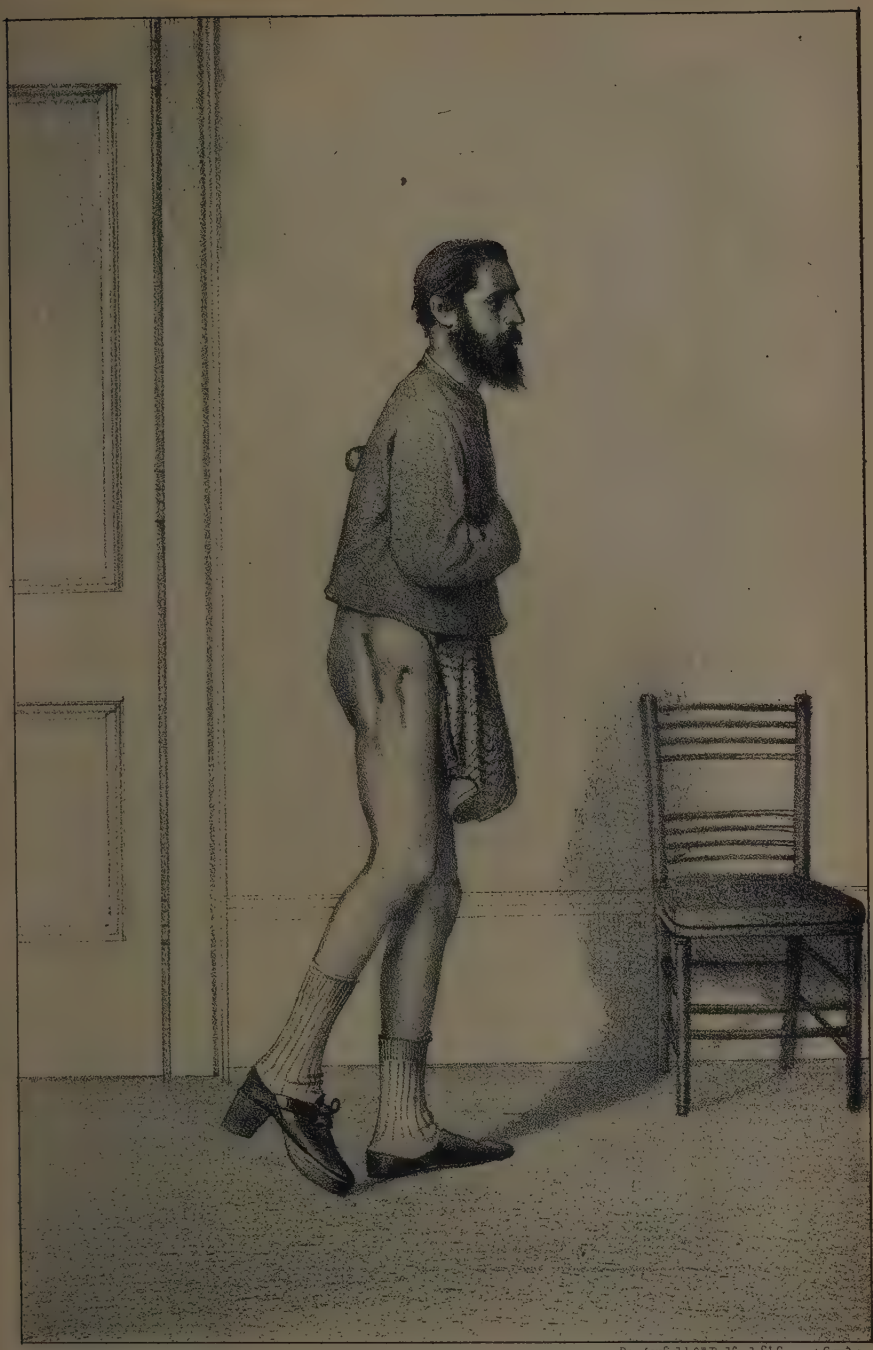
During the course of treatment he complained greatly of pain on the inside of the knee, which was relieved when extension was being applied, by taking care that it was in the axis of the leg and not forcing the limb, as it were, into straight position; subsequently fomentations and anodyne liniments relieved it.

See accompanying illustration.

Case No. 5.—Impermeable Stricture of the Urethra, accompanied by Perineal and Scrotal Fistula—Extravasation of Urine—Puncture of the Bladder per Rectum—Successful Dilatation of the Urethra—Recovery.

The subject of this interesting case was Corporal J. W., of the 5th Fusiliers, a delicate-looking man, who had served ten years in India. Had suffered twice from gonorrhœa, which was treated with strong injections, and once from a venereal sore. His habits have been intemperate.

In June, 1863, he first noticed a diminution of the stream of urine, with a difficulty in mturition, which act was followed by dribbling of urine. For



Dangerfield 21 Bedford St Covent Garden

CASE OF EXCISION OF THE HEAD OF THE FEMUR NINE MONTHS AFTER THE OPERATION,
WHEN THE PATIENT WAS ABLE TO WALK UP & DOWN STAIRS WITH THE AID OF A CRUTCH.
THE ILLUSTRATION REPRESENTS THE WOUND OF OPERATION & THE POWER THE PATIENT POSSESSES
IN BEING ABLE TO PLACE HIS FOOT BEHIND HIM

this he was treated by dilatation, and returned to his duty apparently quite well.

In 1871, symptoms of stricture again returned, and he was treated by dilatation in the hospital at Murree, where there appears to have been a great difficulty in introducing an instrument.

In 1874, when quartered at Bareilly, he had retention of urine: and again, in April, 1875, when no instrument could be introduced into the bladder *per urethram*, and it was found necessary to relieve him by puncturing the bladder above the pubes, his symptoms of stricture were now somewhat relieved; but an abscess formed in the left side of the scrotum, which was opened, and through which urine escaped.

In September, 1875, an abscess formed in the right buttock, near the anus; this was also opened, and was followed, in about a week, by a free flow of urine. In October another abscess formed in the left buttock, which resulted in a fistula, through which urine flowed, whenever he attempted to micturate or defecate; in fact, he was unable to void his urine without regularly going through the act of defecation.

On arrival at Netley Hospital, on the 25th of April, 1876, he was in a most wretched condition; countenance pale and anxious, indicative of great distress. His nights were sleepless, being constantly disturbed by the irritation of the urine trickling from the bladder, rendering his clothes offensive, and producing great constitutional disturbance, his pulse being quick, tongue dry, with exacerbation of fever towards evening, ushered in by bilious vomiting and rigors. There was a hard callous stricture 5½ inches from the external meatus, extending backwards for a considerable distance, rendering the urethra hard and penis infiltrated.

The left testicle was enlarged, and in the skin covering it was an opening, surrounded by pale flabby granulations, from which a cylindrical band of thickened tissue could be traced up to the urethra, entering it about the bulbous portion. From 1 to 1½ inches on either side of the anus there were two fistulous openings, surrounded by large granulations; both these openings discharged a large quantity of pus, and urine escaped through all three, more particularly when he strained; this compelled him always to go to the W.C. when he wanted to micturate.

From date of admission to the 8th of May, several prolonged attempts were made to pass an instrument through the stricture into the bladder, but without success; and on this latter date, his symptoms being very grave, the bladder presenting a large tumor in the lower part of the abdomen, and there being complete retention of urine, none even coming through the fistula, which, up to this, had relieved the bladder, I decided to puncture it *per rectum*, according to Mr. Cock's method.

At 10 A.M. the patient was placed under chloroform, but, having ceased to breathe, thus giving rise to great alarm for his safety to all concerned, much delay was caused in restoring animation, which, having been satisfactorily effected, the operation was proceeded with without an anæsthetic.

From some cause or another, very little urine followed the operation; he was placed in a warm bath, and a suppository, containing ¼ of a grain of morphia administered. At 2 P.M. he had a severe rigor, with great pain in the epigastrium, and vomiting followed by high fever. At 4 P.M. diarrhœa set in, and a large quantity of urine passed with the fæces, which was followed by great relief.

On the 9th the feverish symptoms had disappeared, but the diarrhœa was very troublesome, and the urine flowed freely from the anus; he now experienced the greatest comfort from subcutaneous injection of morphia in $\frac{1}{6}$th of a grain doses, twice a day, which soothed him, and removed all irritation about the bladder, urethra, and anus. On the 11th a little urine passed through the urethra, with much scalding and pain, and on the 13th, No. 1 bulbous metal catheter was passed as far as the neck of the bladder, but no further.

On the 16th another attempt was made to pass No. 1 catheter, which failed; when a catgut bougie was introduced, and allowed to remain in the urethra the greater part of the day, the subcutaneous injection of morphia being steadily administered to relieve all pain and irritation.

On the 17th there was a small stream of urine through the urethra, and the hardness and infiltration along the passage had partly disappeared.

On the 18th, No. 1 French bulbous catheter was passed into the bladder, and urine drawn off; but from this date to the 3rd of June no instrument could be introduced. In the meantime inflammation had attacked the right side of the scrotum, which ran on to a gangrenous condition, having become extravasated with urine, and on the 3rd of June, his condition being precarious, all urine passing by the fistulæ already described, the wound of operation in rectum having closed, his pulse being very quick and weak, and his body exhaling a strong smell of urine. I laid the scrotum freely open, by this means setting free a quantity of pus and urine, administered bark and ammonia, and, after great difficulty, succeeded in introducing No. 2 metal catheter, which I quickly followed by No. 4, and secured it in the bladder, where I allowed it to remain till the 6th, when it was removed, and No. 6 introduced.

On the 7th, No. 8 French bulbous was introduced, but not allowed to remain, as cystitis had been set up, and he could not tolerate it; he had, however, learnt the method of passing an instrument for himself, and used one when he felt the desire to micturate.

He now steadily improved; the wound in the scrotum soon cleaned and healed, the fistulæ closed, the cystitis disappeared by daily washing out of the bladder and the administration of mineral acids.

By July 5th he was able to pass No. 12 French bulbous catheter as well as a No. 12 metal sound; no unpleasant symptom of any kind remained, and on the 28th of July he returned to his regimental depôt, with every prospect, should he attend to instructions, of being an efficient soldier.

Case No. 6.—Removal of a Parotid Tumour.

This occurred in a young patient, aged 22 who gives the following history of its appearance :—

"The first intimation I had of anything amiss was in the beginning of March, 1875, when a small hard lump became apparent to the touch in the fleshy part of the neck, just under the ear. It was then scarcely visible, and was in no way an inconvenience.

"It was considered enlargement of the parotid gland, and, from the increase in the quantity of saliva, there appeared to be no doubt as to this being the case. In November, 1875, it had increased considerably, and I was greatly troubled with shooting pains in it. Local and constitutional treatment had no effect on it, and it continued steadily increasing, causing slight numbness in the side of the face, till July, 1876, when I was recommended to have it removed."

When seen by me in the following August, there was a tumor, about the size of an orange, in the region of the right parotid gland, having a firm feel, and apparently very deep, under the ear.

Arrangements having been made for its removal, on the 28th of August, by a long vertical incision in front of the ear, I cut down on the cyst and endeavoured to work round it with my finger, but from old adhesions, due, probably, to the inflammation set up by the local irritating applications, I was unable to detach it without the aid of the scalpel.

After some difficulty the mass was removed without the necessity of securing a single vessel, but in the cavity left, the large vessels of the neck could be distinctly seen and felt.

The operation was performed under the antiseptic spray, and all precautions taken to try and secure union of the wound by the "first intention," but about three hours afterwards profuse hæmorrhage set in, and it was found necessary to open it and inject the tincture of the perchloride of iron, which had the desired effect, but which retarded its healing for a considerable period.

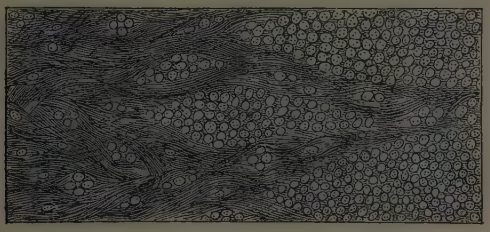
Report on Nature of Tumour, by Surgeon-Major J. Fleming, A.M.D.

"It is somewhat kidney shaped, distinctly lobulated on its surface, and surrounded by a strong fibrous capsule, which does not dip between the lobules. Its dimensions are as follows:

Length	$1\frac{3}{4}$ inches.
Breadth	$1\frac{1}{4}$ „
Thickness	$\frac{3}{4}$ „

"On removing the capsule, the circumference of the tumor is found to be rather vascular, very soft, friable, and easily scraped away by the finger-nail, while towards the interior of the growth, the structure is of the consistence and has the physical appearance of cartilage. The tumor is made up of fibro-cellular tissue, and masses of cells chiefly composed its greater part. The cells are mostly of the same character, being ovoid or circular, containing nucleoli, and they diminish in numbers towards the centre of the growth, which, though resembling cartilage, is composed of white fibrous tissue in a state of great condensation.

"The magnified sketch underneath gives an idea of the structure, above described, from within outwards, showing the gradual transition from the central condensed fibrous tissue towards the masses of cell structure on the right of the figure." "Judging from the vascularity of the tumor externally, and the great abundance and quality of the cell growth, it is a structure which would be liable to recur if any portion were left behind; but in the present instance the whole (as contained within the capsule) appears to have been removed in its entirety."



A Section of Parotid Tumour magnified.

Case No. 7.—Removal of a Bullet which had been lodged for nearly Two Years and a Half.

Major A. A. G., 103rd Regiment, was wounded on the 27th of October, 1873, when engaged with the enemy at Dungualo, Ashantee. According to the statement of his case, the missile entered the left groin, a little over an inch to the outside of the great vessels and an inch below Poupart's ligament; it passed outwards, backwards, and downwards below the great trochanter. Several attempts were made, both on the coast and at home, to discover the missile, but without success, and for nearly two years and a-half it remained lodged, giving rise to a copious discharge through the opening of a sinus at the wound of entrance, and causing impairment of health, with great inconvenience.

Having made several examinations with the different exploring instruments which have been invented from time to time, no definite conclusion was arrived at, further than the discovery of a hard substance, fully three inches deep on the outer side of the femoral artery.

Major G. having agreed to an attempt being made to remove it, on the 4th April, 1876, he was placed under the influence of ether, the opening of the sinus enlarged with a probe-pointed bistoury, and the little finger of my right hand introduced into the wound, the tip of which could just reach the missile; by a little manipulation, with the left hand pressing towards the finger, the missile was hooked by the first phalax, and by still further enlarging the wound outwards, an iron bullet, 82 grains in weight, was removed.

The wound was dressed from the bottom with lint saturated with carbolised oil, and at the end of one month it had completely healed.

No indication of metal having been given by the electric explorer, even when the bullet was out of the wound it was found to be coated with clay, which prevented contact with the poles of the explorer.

Case No. 8.—Removal of a Bullet after being lodged for Six Months.

W. L., of the 70th Regiment, was wounded in an engagement against the Malays, near Sunghie Wyong, on the 7th of December, 1875

The projectile entered the inner side of the right thigh, about 6 inches above the knee. Immediately he was struck, he fell, but experienced very little pain or faintness. On attempting to rise again, he found he could not lift the injured limb, as the bone was broken. He was conveyed to camp, a distance of seven miles, where a careful search was made for the projectile, but no foreign body could be detected.

The fracture united most satisfactorily, the limb having been treated in the bent position; and, in April, 1876, he began to get about on crutches.

On arrival at Netley Hospital, the 2nd of the following June, there was a small circular depressed cicatrix (the wound of entrance), 1½ inch in diameter, on the inner side of the right thigh, about 4 inches above the condyle, and a little nearer the front than the back of the limb. In the centre of this cicatrix was an extremely minute opening, through which a probe could be passed into a sinus 1 inch in length, and at the end of this a hard foreign body could be felt lying in the soft tissues, and that this was the missile which caused the wound there can be no doubt.

This minute opening was enlarged in a vertical direction to the extent of about one inch and a half, the forefinger of left hand passed down to the foreign body so as to fix it, and a bullet forceps then introduced, and a block tin and porcelain bullet extracted with some trouble, it having become encysted. Weight of bullet, 141 grains.

A small piece of necrosed bone, about the size of sixpence, came away about 6 days after the operation, when the wound rapidly closed.

There is special interest attached to this case of gunshot fracture of the thigh, as, notwithstanding the patient having been carried for seven miles in a most primitive manner after he was wounded, no complications arose during the treatment which in any way retarded his recovery.

When the patient left Netley Hospital, there was considerable thickening of the lower third of the femur, and the limb was apparently shorter than the sound one.

Illustration No. 1 represents the missile in its natural size and form, which was removed from this patient, weight 141 grains, and which is composed of tin apparently hammered into a spherical form, within this metal is a piece of porcelain, a portion of which is represented by the dark spot, *p*. The object of this porcelain it is difficult to discern, as it does not add any special weight to the missile, and did not become detached on striking the bone, as might have been supposed, with a view to aggravate the wound.

Illustrations Nos. 2 and 3 also represent missiles composed of tin and porcelain, with which two men of the 10th Regiment were wounded during the same engagement. No. 2 is apparently a section of a piece of thick wire, weight 146 grains; and No. 3 is a spherical bullet, weight 171 grains, very

irregular in shape, with a small nipple-like projection, and a large portion of porcelain, *p*, appearing.

No. 1. No. 2. No. 3.



Case No. 9.—Gunshot Wound of the Right Side of the Face, followed by total Destruction of the Eye and great Loss of Tissues—Extirpation of Lachrymal Gland—Removal of Tarsal Cartilage, and Skin grafting.

No. 67, Private D. C., of the 74th Highlanders, on the 10th of March, 1876, after indulging too freely in alcohol, attempted to commit suicide by shooting himself with his rifle. The bullet entered his neck, about ¼ of an inch behind the anterior margin of the right sterno-mastoid muscle, on a level with the top of the thyroid cartilage, it passed upwards, penetrating the muscles of the tongue, shattered the lower jaw on the right side, about an inch anterior to its angle, carried away the right malar bone and a portion of the floor of the right orbit, completely destroyed the soft parts on that side of the face, as also the right eye. There was a simple fracture of the frontal bone, extending backwards for about 2 inches. There was violent hæmorrhage, which appears to have been soon controlled.

The wound was dressed with cotton wool soaked with carbolic oil; very little irritative fever followed the injury, and for some time he was fed by means of the tube belonging to the stomach pump; several sloughs and pieces of bone came away, after which the wound healed, with the exception of a sinus communicating with the mouth at its right angle, and a large triangular granulating surface extending from the orbit to the angle of the mouth, and from the side of the nose outwards to the prominence of the cheek.

On arrival at Netley his general health was very good, but the granulating surface and sinus, as above described, still existed. The right upper eyelid was perfect, and its hairs, which rested on the granulating surface, kept up a constant state of irritation and purulent discharge, which trickled through the sinus into the mouth. The lachrymal gland protruded from under the outer angle of the eyelid, and gave rise to much irritation on the outer half of the wound from the contact of tears which trickled into the mouth through the sinus at its outer angle, and on that portion of the wound, when these tears were shed, its surface had all the characters of mucous membrane.

With a view to relieve the patient from this most uncomfortable condition, I at first contemplated a plastic operation, by taking some healthy skin from the cheek, but afterwards decided to try skin grafting, and accordingly, on the 11th of October, 1876, grafted three pieces of skin taken from over the right deltoid muscle.

On examining the wound three days after the operation, I found the grafts had been washed away by the discharge and tears. I then decided to try the operation again under different conditions, and on the 18th of October, the patient being under the influence of chloroform, first removed the tarsal cartilage of the upper eyelid, by which the irritation from the hairs was at once obviated. The mucous membrane lining the orbit and lid was then dissected off, and with it the lachrymal gland extirpated. The granulating surface was freely scored with a scalpel, and three pieces of skin taken from over the deltoid muscle engrafted.

The surface of the wound was then dressed with carbolic oil, 1 in 40, and the whole secured with a pad of cotton wool and bandage.

On the third day it was found two of the skin grafts had taken, and that all flow of tears and pus from the wound into the mouth had ceased. On three subsequent occasions skin grafts were again tried, but without success; however, those which had taken increased in circumference, the wound gradually contracted, and is now in a fair way for being completely skinned over, the application of salicylic acid assisting this process in a great measure.

Remarks on Cases of Stricture of the Urethra.

During the year 1876, 33 cases of stricture of the urethra were treated in Netley Hospital, all of which were admitted from foreign stations. Of these 27 had their origin in gonorrhœa; 3 in gonorrhœa and injury combined; 1 in local injury; and in 2 the patients could not account in any way for the disease.

Most of the cases had strong injections for the treatment of the gonorrhœa, which disease in many instances became gleet, extending over considerable periods, the urethra gradually becoming contracted.

In 2 cases there were fistula in perineo, and in 1 chronic orchitis, which complications disappeared as the strictures were cured.

Of the position of the 33 strictures, 1 was at the external meatus; 3 within 1½ inches, 3 within 2½ inches, 5 within 3½ inches, 2 within 5 inches, 13 within 5½ inches, 7 within 6½ inches, and 2 within 7½ inches, of the external meatus; 2 were noted as being at the neck of the bladder; making a total of 38 strictures in 33 cases, 5 therefore had 2 strictures each.

Treatment.—In 31 cases gradual dilatation with metal or elastic instruments was carried out with marked success; 2 cases were treated with Mr. Holt's forcible dilator and dilatation after the operation with metal and elastic instruments, both being successful.

In 1 case division of a stricture at the external meatus was found necessary, pain and distress in micturating being at once relieved.

In 1 case there was complete retention of urine, from a hard, firm, permanent stricture in the penile portion of the urethra. Puncture of the bladder was performed per rectum, which was followed by relief and cure of stricture. See Case No. 5.

APPENDIX No. III.

REPORT ON THE ADMINISTRATION OF CHLOROFORM AND ETHER AS ANÆSTHETICS.

By Surgeon-Major Porter, Assistant Professor of Military Surgery.

During the year 1876 chloroform and ether were administered at Netley Hospital in 21 and 13 cases respectively.

The following is an analysis of the time taken to place the patients under their influence, the quantity used, and their general effects, as taken from a register kept for that purpose :—

Chloroform.

	Minutes.	Seconds.
Shortest time taken to place under influence	2	0
Longest time	20	0
Average time	8	5
Average time under influence	11	20
Smallest quantity used in any one case	1 drachm	
Largest quantity used	12 drachms	
Average	3	9

Vomiting occurred in 2 cases during or after the administration of the drug.

Excitement in 11 cases during or after the administration of the drug.

In 2 cases there were most grave and alarming symptoms, sudden failure of the pulse, lividity of countenance, and feeble respiration, obliging the operator to discontinue the anæsthetic and restore suspended animation, by pulling the tongue forward, using artificial respiration, and allowing a free current of fresh air to pass over the body.

Ether.

	Minutes.	Seconds.
Shortest time taken to place under influence	7	0
Longest time	45	0
Average time	18	0
Average time under influence	17	41
Smallest quantity used in any one case	2½ oz.	
Largest quantity used in any one case	14 „	
Average	6½ „	

Vomiting occurred in 4 cases during or after the administration of the drug.

Excitement occurred in 10 cases during or after the administration of the drug.

The anæsthetics were invariably administered on empty stomach.—Chloroform by means of a handkerchief or towel folded into the form of a cone, or sprinkled on thin flannel stretched on a wire frame.—The ether, with one exception, was given with Dr. Thomas Skinner's apparatus—"Punch's Nose," as described in the British Medical Journal of October 2, 1875, page 243. It is certainly more tedious than Morgan's apparatus, and wasteful, but has the advantage of being more portable.

APPENDIX No. IV.

ON THE DIAGNOSIS AND CAUSATION OF FÆCO-MALARIAL FEVER.

By Surgeon-Major Jas. Y. Donaldson, M.D.

Some confusion having arisen as to what constitutes Malta, or, as I prefer to call it, Fæco-malarial, or Mediterranean fever (for it exists in Gibraltar as well as in Malta), the following remarks are intended to throw some light upon the subject. By fæco-malarial fever, I mean what has been called by Marston and others, "gastric remittent fever," which I think better deserves the name of Malta fever than the febricula common to other warm countries, which is generally recognised by that name. I think the designation suggested by Professor Maclean a bad one—typho-malarial fever—as it is compounded of a cause and a result. By the word "*malaria*" I mean all noxious exhalations from the soil, or buildings thereon, capable of generating disease, and by "fæco-malaria," noxious exhalations from decomposing sewage or fæcal matter. I shall speak of malaria in the sense Professor Maclean uses the word, as marsh malaria, or miasma.

The febrile conditions requiring to be distinguished in Malta, are commonly the following, viz., (1) febricula, including simple continued fever; (2) febrile dyspepsia; (3) fæco-malarial fever; (4) enteric fever.

When a soldier reports himself sick with febrile symptoms, the following questions are put to him:—How long have you been ill? Was your appetite good up to the day on which the shivering, headache, or pains in the "bones," commenced, or had you been losing it for some days previously? If he had been ill only for a day or two, and had had a good appetite up to the commencement of the rigor, &c., the disease would most likely be febricula (including simple continued fever), if, on the contrary, he cannot well tell when he first began to feel out of sorts, but states he has been able to take but little food for some days, and has had occasional headache and feeling of chilliness, then in all probability the disease will turn out to be, in the summer or early autumn, either febrile dyspepsia or fæco-malarial fever, or, later in the autumn, enteric fever.

The latter may occur earlier in the season, or indeed any time throughout the year, although most common in the autumn.

The diagnosis betwixt fæco-malarial and enteric fever, which of the above named diseases resemble each other most, is further made, as follows, viz:—

Enteric Fever.	*Fæco-Malarial Fever.*
General aspect depressed, as if suffering from the effects of a poison.	General aspect natural.
Characteristic eruption on skin.	No eruption on skin.
Diarrhœa.	Constipation.
Temperature following a definite course.	Temperature very irregular.
One exacerbation and remission in twenty-four hours.	One, two, or three paroxysms and remissions during twenty-four hours.
Bronchitis common.	Bronchitis rare.
Delirium common.	Delirium rare.
A signal loss of strength early in the disease.	Strength not so much impaired as might be expected.
No such periods.	In latter stages, periods of complete freedom from fever.
Relapses not common.	Very liable to relapses.

Enteric Fever.	*Fæco-Malarial Fever.*
Rheumatic and neuralgic sequelæ not common.	Rheumatic and neuralgic sequelæ the rule.
Mortality about 25 per cent.	Very seldom fatal.
Post-mortem appearances: enlargement or ulceration of Peyer's glands, or solitary glands of large intestine, or both.	No such glandular affection: hyperæmia of duodenum, and upper part of jejunum, often very intense.

The above diagnosis is generally applicable, although cases occur, chiefly in the autumn, where it is impossible to tell which of the above diseases you have before you, and a post-mortem examination alone can settle the point; these "mixed cases" will be alluded to again under the head of "Causation."

Febrile dyspepsia is distinguished from either of the above, at whatever season of the year it may occur, by the pyrexia being intermittent and the paroxysms very irregular in their onset, intensity, and duration, from the very beginning of the disease, and it is almost always attended with marked depression of spirits, amounting in some cases almost to melancholia.

Febricula is chiefly recognised by the history of the onset, as above noted, and by its ending in a very few days by crisis.

The name *simple continued fever* is applied to cases of febricula lasting more than three or four days, although some medical officers at this station apply that term to what has been called in this article fæco-malarial fever.

A few remarks may be made on some of the above diagnostic symptoms.

I. *General expression of Patient.*—On entering a ward where both enteric and fæco-malarial fever cases are being treated, it is, as a rule, easy to tell which is which by the expression of the countenance alone. The face of a patient with fæco-malarial fever may have an anæmic or flushed appearance, according as to whether he is seen in the exacerbation or remission, but the expression is, otherwise, as in health; that of the enteric fever patient wears a look of one suffering from serious disease; I have called it a poisoned expression.

II. *Diarrhœa and Constipation.*—In fæco-malarial fever there is almost always constipation; the reverse obtains in the cases of soldiers of intemperate habits who have had diarrhœa, or a tendency to diarrhœa, before being attacked with the disease.

III. *Temperature.*—In fæco-malarial fever it is very irregular, on account of there being often more than one exacerbation and remission during the twenty-four hours. Records of temperature taken only twice daily are hence of little use in this disease.

IV. *Exacerbations and Remissions.*—These are evident in all cases of fæco-malarial fever from the beginning of the disease, and are not to be confounded with the evening exacerbations and morning remissions of enteric or other fevers. The exacerbations in the first noticed disease may occur during any part of the twenty-four hours, and their onset is generally marked by an evident increase of headache, chilliness, or rigors; I have seen the rigors as well marked as in ague, and lasting for hours. The remissions and exacerbations become better marked as the disease advances, and often in the latter stages the fever becomes an irregular intermittent.

V. *Delirium* in fæco-malarial fever is rare; when it happens it generally indicates a complication.

VI. *Loss of Strength.*—There is often but little loss of strength, even in long-continued cases of fæco-malarial fever; indeed some of the cases do not come into hospital at all during the febrile stage, but report themselves sick when neuralgia, effusion into one of the joints (generally the knee), or some other painful sequelæ occurs.

VII. *Post-mortem Appearances.*—The pathognomonic lesion of fæco-malarial fever is hyperæmia of the mucous membrane of the duodenum and upper part of the jejunum, always well marked and often intense; softening of the mucous membrane of above parts may or may not be present. This hyperæmia may appear in other parts of the mucous membrane of the alimentary canal, but its existence there is not constant. All cases where there is enlargement or ulceration of Peyer's glands, or of the solitary glands of the large intestine, must be looked upon as belonging to enteric fever. Fatal cases occur where

both the above sets of post-mortem appearances occur together; these are mixed cases, and during life the symptoms will be found partaking both of fæco-malarial and enteric fevers. Cases of undoubted enteric fever occur at this station, where the only lesion in the alimentary canal found after death is in the solitary glands of the large intestine.

The fevers above enumerated are subject to modifications—the so-called "bilious fevers." These seem to me to be but explosive forms of those already mentioned; that is, cases where the force of the disease, in place of being spread over weeks or months, as is usually the case, expends itself in a few days, and not new diseases.

Causation.

I look upon enteric and fæco-malarial fever and febrile dyspepsia as but different expressions of a similar cause, viz., the breathing of an air or the drinking of a water polluted by sewage or its emanations; the former being due to the introduction of the poison through the drinking water, and the two latter to its entrance through the air. An examination in detail of some points in connection with the air, water, and soil of Malta, as they influence the soldier, may serve to elucidate the above statements.

Air.—The pollution of the air of the streets, and in a much more marked degree of the interior of the houses of the "Three Cities," in or near which most of the barracks of the island are situated, is very apparent, even to the casual observer. This results almost wholly from the emanations from sewers: the primitive waterclosets in most Maltese houses and the numerous gratings in the streets being but so many ventilators for the very faulty sewage system with which they are connected. Dr. G. Gulia, an eminent local practitioner, states, that in Cospicua "effluvia arising from houses and sewers are so intense that silver articles left exposed in houses blacken in a short time." (H. Barth, 6th March, 1875.) In the highest part of Cospicua is situated a barrack, noted for its fever epidemics, chiefly fæco-malarial, viz, Verdala. The rooms are casemates, built round a narrow irregular space, shut in on all sides. The drainage of Verdala barracks is connected with that of Cospicua, and the outlets within the barracks enclosure act as ventilators for the sewage system of the above-named most insanitary town. It may be said that the outlets of the drains within Verdala are trapped; this is allowed, but the traps are water ones, and the pressure on the sewage gas at the highest part of Cospicua—which is very evident in summer outside the barracks at places where there are only open gratings—easily forces them. Even although there were little or no pressure, the sewage gas soon saturates the water in the traps, and when this takes place effluvia is constantly given off from its surface, and the warmer the weather the more the gas disengaged. At the season of the year when the fæco-malarial fever occurs, the water supply of the barracks in question, although in part medically unsafe, is chemically usable, and in the part which is suspicious the deleterious matter may be supposed to exist in so diluted a state from the winter's rains as to be incapable of producing disease. The barracks are situated on porous sandy limestone, the surface drainage is good, and the soil is not contaminated. The soldier also spends his leisure in the various insanitary towns, and seldom goes out into the country, so that when he is not inhaling the fæco-malaria in his own barracks he is being poisoned with it otherwise, often in a more concentrated form. Hence it would appear that the only potent cause in operation at the season of the year when fæco-malarial fever is rife—the summer and early autumn—is the constant inhalation of sewage emanations. The same sort of reasoning may be applied to some of the other barracks in the Command where fæco-malarial fever occurs. To all this a plausible objection may be brought forward; it may be asked, Why does fæco-malarial fever occur in the summer and early autumn? why does it not prevail at other seasons also? (it does occur, however, at other times) since the hurtful sewage emanations are evolved for the whole warm part of the year. This may be answered by assuming that those susceptible of fæco-malarial fever have mostly all succumbed before the autumn is reached, and that by this time another set of causes have come into operation, producing a separate form of fever. The question of marsh malaria will be discussed in connection with Soil."

Water.

Water is supplied from two aqueducts and from numerous tanks containing rain water, but the tanks for the use of the troops sometimes contain a mixture of both. The chief characteristics of this water are its containing lime and chlorides. Parkes (Hygiene, p. 592) accounts for the latter on the supposition that the spray from the sea falls on the roofs of buildings and is hence washed into the tanks. But there are many tanks which the spray cannot reach, and to which this method, therefore, cannot apply. I think it more probable that both the lime and chlorides are drawn from the strata over which the water flows; it always runs over the sandy limestone in some part of its course (its analysis is given under soil), which forms the buildings, roofs of tanks, roads, parades, and other collecting surfaces, and would naturally wash out part of the chlorides and lime which it contains. Chemically, the tank water is usable, although, from a medical point of view, it is unsafe; it is so because the collecting surfaces are subject to pollution, sometimes of the worst description. The following examples may be given: (1) The new military hospital for the Cotonera district: the collecting surfaces for the water of this building are the roofs of the hospital, kitchen, &c., the hospital grounds, a neighbouring bastion and parade ground!! (2) Verdala barracks: partly from the roofs of the buildings, partly from the ditch of the fortification where it is a common thoroughfare. (3) Fort Ricasoli, partly from aqueduct, partly from parade, &c. In some barracks, such as Pembroke Camp, where the collecting surfaces are the roofs of the buildings, the public roads and the neighbouring rocky ground, part of it is said to be filtered before reaching the tanks, that is, it is allowed to run through upright slabs of porous stone before reaching them: it thus undergoes a straining process, by which means suspended matters are in a measure removed. As the chemist cannot detect the germs of disease, there is always a suspicion that these may exist in such water as above described, from the nature of the collecting surfaces; and from the same cause also during epidemic seasons of cholera, or the like, the tanks would be subject to sudden contamination with the contagious matter of those epidemics, and thus carry destruction far and wide. How this water does not, under ordinary circumstances, produce the fever under consideration, has already been explained; that it is capable of conveying many other diseases may be allowed.

Soil.

The soil on which all the barracks, with one exception, are situated is composed of humus and the debris of underlying sandy limestone; its depth varies much. The exception being Pembroke Camp Barracks, where the soil is humus resting on the lower semi-crystalline limestone. The stone of which the barracks and houses are built and on which they mostly rest has been called by most authorities "sandstone." The following is its composition:—

Calcium, carbonate	882·41
Calcium and sodium, chloride	·59
Silica	117·00
	1000·00

It would thus be more correctly named a sandy limestone. The proportion of chlorides varies from circumstances for which no adequate reason has been assigned. It will be now clear why the water supply of Malta, which runs over or traverses the above sandy limestone in some part of its course, contains lime and chlorides, and why borings in strata of this kind with the expectation of finding fresh water should meet with failure. In 1867 a shaft was sunk through this sandy limestone in order to try and obtain an addition to the water supply of the island; at the depth of 110 feet the supply of water was 112 gallons per hour, but it was brackish and unfit for use. (The water for the Wignan court and Fauara aqueducts is derived from the upper limestone.) The drains in Malta are usually described as narrow deep channels cut in the soft porous rock, but it should also be added that the sewers are covered inside with a coating of cement, and are thus, except where the cement has given way, impervious; some of the drains conveying surface water to the

sewers are, however, without cement, and would answer to the above description. I have seen some of the oldest sewers opened and have examined their margins, and here and there a dark stain extended into the cream-coloured calcareous sandstone to a distance of about four inches where the cement had given way, but this was all; the "fæcal saturation of the part of the island occupied by the troops" (Maclean in Edinburgh Medical Journal, September 1876) I have never been able to verify; it is probably an inference from the above-mentioned erroneous idea concerning the sewers. That the air is saturated with fæcal emanations, I allow, but these proceed from the numerous outlets of the sewers and not from the soil or subsoil. One hears often of the dry and rocky soil of Malta, but those who use this expression take but a superficial view of the island. On the north-west coast are situated various valleys, notably Wied Emtahlep and Wied Gineyna, where a scanty soil rests on wet marl all the year round, and where "cases of intermittent fever now and then takes place in the labourers' cottages" (Dr. G. Gulia in Il. Barth, No. 1), and would no doubt, considering the structure of these valleys, take place oftener were it not that they are so thinly inhabited. These valleys are situated about ten miles from the barracks inhabited by the troops, and hence the marsh malaria from them can scarcely affect the soldier: but there is a place nearer at hand, indeed within a half a mile of the Floriana Barracks, productive of marsh malaria at certain seasons, viz., the Marsa. This is a low lying strip of alluvium at the top of the Grand Harbour, through which in the winter months a streamlet flows, forming the outlet of the surface drainage of a large part of the island east of the Bengemma Hills. In summer this streamlet is quite dry, or nearly so, but there are various water channels communicating with it supplied from wells in the marsh itself, and these are damp all summer through. This tract of land seems to have been formed from soil brought down by the streamlet above alluded to, and has been at an earlier period a sort of delta. An abundant supply of water is found a few feet below the surface of the Marsa, and early in the summer mornings a mist hangs over it, extending through the village of Casal Curmi to St. Antonio Palace and Casal Lia. In former years, before the improvements took place at the top of the Grand Harbour, the Marsa was much more swampy than it is at present, and the neighbouring villages of Casal Paolo and Casal Curmi were then much afflicted with marsh malarious fever in its various types. This has now disappeared from these villages, but cases of intermittent fever still occur amongst the residents (civilian) at the military laundry, which is situated on the edge of the Marsa itself. About a mile to the west of Valletta, there is the low-lying village of Misida; it is placed at the top of the Marsa Muscetto Harbour and at the entrance of the Binchicara Valley: the houses form two legs of a letter V and betwixt these is situated a swampy piece of ground, now in process of being filled up and drained, known as the "fish pond." Cases of intermittent fever occur amongst the inhabitants of this village. There are other places in the island where from their structure it might be inferred that marsh malaria would be developed, but from these no trustworthy information can be obtained. With all this evidence of the existence of marsh malaria in Malta, there can be no hesitation in accepting the opinion of Professor Maclean "that there is a stout thread of malaria running, so to speak," through some of the fevers of that station. To my mind there is only one thing which militates against that view, viz., quinine has no curative effect on these diseases: given in large doses, it reduces the temperature for a time, but nothing more. I am aware that because quinine benefits a febrile disease, this is not of itself sufficient evidence of the marsh-malarious origin of that disease, and the converse of this proportion may be true. On the whole, then, fæco malarial fever may be supposed to be due to the constant inhalation of emanations from decomposing sewage, and to be complicated, in the majority of cases, with the poison of marsh malaria.

MALTA,
12th March, 1877.

Note by Dr. W. C. Maclean, C.B., Professor of Military Medicine, Royal Victoria Hospital, Netley.

Knowing the interest I take in the etiology of the fevers which prevail in the great fortresses of the Mediterranean, Surgeon-Major Donaldson was kind enough to send me for perusal, before publication, his contribution towards the right diagnosis of that hybrid form of fever to which I gave the name of typho-malarial; it will be seen that Dr. Donaldson objects to this name, and wishes to substitute that of *fœco-malarial*, on the ground, if I rightly understand him, that the term used by me, and which by the way is extensively used in India to designate a hybrid fever of the same kind, does not sufficiently indicate the fæcal factor in the genesis of this protracted and distressing form of fever.

Now, it may seem hardly worth while to dispute about a name; the oft quoted "What's in a name?" will rise to the lips of many; but not to dwell on the obvious objections to the multiplication of names intended to designate one disease, I think we have here a capital example of a "distinction without a difference." If Dr. Donaldson wishes to have the fæcal factor clearly defined, he need not exercise his ingenuity in seeking a term stronger than the abbreviated "typho" for "typhoid," which to my mind is the very type of a fæcal disease, and which, for all practical purposes, sufficiently marks the poison that plays so active a part in the origin of this fever, without the introduction of a uselessly unpleasant word, or part of a word. The most refined people now a-days in general society talk freely of "house drains" and "drainage" and "sewer air," but whatever may be in store for us in the popular "Medicine of the future," I trust we are a long way off from having to talk about fæcal fevers, when we can find another term that will as significantly indicate the *fons et origo* of the disease without the aid of a term so unsavoury.

I venture with more pleasure to point to a significant fact, noted by Dr. Donaldson as commonly observed in the *post-mortem* examinations of those who die of this typho-malarial fever, which I commend to the attention of those that say there is no malaria generated in Malta; it is this, the hyperæmia and softening in the upper part of the small intestine: a lesion of all others the most frequently noted by French and Italian physicians in the *post-mortem* examinations of those dying of the pernicious fevers of the malarial regions of Italy.

APPENDIX No. V.

CASE OF INTESTINAL OBSTRUCTION, FOLLOWED BY PERFORATIVE PERITONITIS.

By Surgeon-Major William Hensman.

Private ———, 46th Regiment; age 24; service 4 years in England and Bermuda. Previous disease in sequence, tonsillitis, acute rheumatism, synovitis, acute rheumatism. Admitted on 30th January, 1877, and had suffered for 3 days with colicky pains and constipation; he also mentioned that he had eaten some oilcake: he was given a purgative.

Jan. 31. Colicky pains have continued all night, and the medicine has not acted; there is vomiting, rather frequent, of the fluid contents of stomach: no signs of hernia.

Ordered.—Effervescing draughts every hour; cal. gr. ii, opium ½, every 3 hours; turpentine stupe.

Feb. 1. Appeared to be improving, and the calomel and opium discontinued.

Feb. 2. Complains of radiating pains, especially on left side; constipation obstinate, no flatus passing; vomiting stercoraceous; abdomen tympanitic and distended; great tenderness on pressure; he sits up in bed and leans forward for relief; much depression; urine passed in normal quantity; examination of rectum made, but no obstruction found.

An enema was given with a long tube, he was ordered 1 gr. of opium every 3 hours, and fomentations. In the evening the enema was repeated, and a warm bath given.

Feb. 3. Same way. Treatment continued.

Feb. 4. Great depression; restless, and in great pain; no relief to symptoms. Galvanism applied along course of colon, and an evacuation of soft fæcal matter obtained.

Feb. 4. Depression more marked; no relief. Died at noon.

Post-mortem, 24 hours after death.

External surface of body strongly discoloured by post-mortem changes, especially over abdomen. On exposing the abdominal contents, putrefactive changes had already set in; the contents of the thorax, with the liver and stomach, were thrust upwards as high as the fourth rib. Peritoneum adherent to walls throughout, and darkly vascular; some sero-purulent fluid was present in the pelvis.

Small intestines were swollen, distended, and inflamed; proceeding downwards from jejunum the inflammation more marked; ileum deeply discoloured.

Cæcum occupied the epigastrium, largely distended and gangrenous; it contained three pints of soft bilious fæcal matter; there was a perforation, size of pinhole, from which the fluid contents escaped on handling; the extraordinary position of this portion of the intestine is explained by what follows. Ascending colon was connected along nearly its whole length, and was closely approximated to the transverse portion, carrying the cæcum upwards into the epigastrium, forming a loop at the hepatic flexure, the connecting medium being a network of white opaque inelastic filamentous tissue with a tenacity equal to twine, not the result of recent inflammation, but of old date. Vermiform appendix was free from obstruction.

Descending colon contracted to 1 inch diameter, empty and free from disease. General peritonitis over surface of intestine; recent soft exudations and flakes and shreds of lymph. A round worm was found in the bowel.

There was no intussusception or strangulation; the finger could be passed from the distended cæcum to the contracted descending colon, but the intervening portion was so constricted and bound by adventitious tissue, that its vermicular action must have been very much weakened and spasm easily aroused, while passage through it must have been difficult at the best of times, and likely from slight causes to become arrested, distension following, with the symptoms and issue which have been recorded.

APPENDIX No. VI.

A CONTRIBUTION TO THE ETIOLOGY OF HEART DISEASE IN THE ARMY.

By Surgeon F. Arthur Davy, M.D.

Mr. Myers has done good service in bringing into prominence, by means of his essay—the "Alexander" Prize Essay—the causes which, in his opinion, are at work in the production of heart diseases in the army: for, the disability under which the army has laboured, in this respect, and continues to labour, is very great indeed. He points out the much greater prevalence of heart affections of all kinds among soldiers than among the civil population, although soldiers are most carefully selected:—and after giving due prominence to such influences in the production of organic and functional cardiac diseases as Bright's disease, acute rheumatism, abuse of alcohol, syphilis, excessive smoking, &c., he rightly sums up that some other cause—to account for the excess—must be at work which is not at work among the civil population; and that that cause is to be found in the mechanical obstruction to the circulation which is exercised by the tightly-fitting clothing and accoutrements of the men. I am fully sensible of the importance of that conclusion; and it is much to be regretted that the soldier's dress, as now regulated, does not allow that complete freedom from constriction, which, when work is expected of him, he ought to enjoy. But taking, as I do, mechanical obstruction to the circulation, and excessive strain on the heart, to be the causes of the excess of heart diseases among soldiers, I think it is to be regretted that, in the admirable essay alluded to, the conditions by which mechanical obstruction and excessive strain may be brought about, are not more fully considered. One condition, or rather set of conditions, which exercises a powerful influence in the causation of heart disease in the army has not been discussed. It will be the object of this paper briefly to point them out. I allude to the manner in which the early training of the recruit is conducted. Mr. Myers' book has only the following paragraph on the subject. He remarks on the severity of the drill, but does not say in what the severity of it consists; and no solution is offered of the exhaustion induced by it:—"The training of recruits should extend over a longer period, and, like gymnastics, should not be severe at first. I have often seen recruits perfectly exhausted after their morning's drill, and I am led to believe that the course of instruction they undergo is, owing to its severity, particularly obnoxious to them, and it is one which, with the present uniform, is very apt to lay the foundation of much heart disease in the army." This exhausting drill is not further considered, but Mr. Myers' remarks constitute strong evidence against it. Training ought not to result in exhaustion; if it does it is bad training. I hope to make it plain, in the few short paragraphs which I can devote to the subject, that cardiac irritability, resulting from deranged innervation of the organ, irregularity of rhythm, inequality in strength in the cardiac contractions, as well as hypertrophy and dilatation, with their possible consequences to the efficiency of the valves and to the aorta, have their starting point in a great proportion of the cases invalided in the orders of the drill-sergeant; and that in obedience to him mechanical obstruction and strain are imposed on organs (especially on the heart) the integrity of which it should be the object of all training to preserve.

It will be well to state, at the outset, that I base the claim of the argument on a consideration of the degree in which the physiological conditions, under which the heart and lungs perform their functions, are altered by the treatment which the recruit undergoes from the commencement of his career; and that the resulting mischief bears a definite proportion to the degree of this alteration in each individual recruit. Those are most injuriously affected who most accurately carry out the orders of the drill-sergeant Now, I do not say

that tight uniforms and ill-adjusted accoutrements do not aid in producing the unhappy result: their adverse influence has been amply demonstrated: but I do say that, if the clothing exercised no injurious influence whatever, mechanical obstruction to the circulation and excessive strain on the heart can be brought about by other means. I will now consider the means to this end provided in the drilling of the recruit.

The improvement of the physique of the recruit being the object in view, the following is one of the modes in which it is attempted to attain it. He is made to stand bolt-upright, his head well back, and his chest, being dilated to the fullest inspiration, is *kept* as much as possible so dilated. I need not specify this attitude of "attention" further; an attitude useful for no kind or description of work. This artificial dilatation of the chest is the point on which I wish to fix special attention. I will show good reason for calling it artificial later on. Now, let it first be conceded that the regulation drill-sergeant regards this expanded condition of the chest as the chief object to be attained in the recruits standing before him. He calls it "setting-up drill." The drill would not deserve the name without it. Any recruit in the squad who does not keep his chest thrown prominently forward, and fully expanded, soon has his attention called to the fact. For anybody who will not concede this point, the following remarks will have no weight. I believe the surgeons of the army will concede it. We have, doubtless, all remarked the manner in which the soldier dilates his chest, and keeps it dilated, when he is about to be examined with the stethoscope: much to the annoyance of the surgeon. It is the lesson taught him when he joins: he is to the manner trained, not born; for in examining men for enlistment, I have never seen this dilating of the chest resorted to; as civilians they do not think about their chests. Need I add that the caricaturist of the soldier never omits to represent him with an abnormally large and prominent thorax. Perhaps even such a fact may point to an important truth. But without any remarks like these, I think it will be allowed that the condition described is forced on the recruit by the "setting-up drill." Though conceding the point, an objector may ask, "What harm results; the training is supposed to be beneficial; and large capacity of chest is an advantage?" To that matter I shall come presently; now merely remarking that increased capacity is of no advantage when obtained at the expense of mobility. But I may reply for the moment by asking how (if no harm results) is the "severity" of the drill which Mr. Myers proclaims, but does not explain, accounted for: or the exhaustion which he has seen, as I have, result from it? If merely prolonged drilling produce it, say under a hot summer sun, how is it that the drill-sergeant is not overcome or "exhausted"? He has the additional work of vociferating loudly all the time. If his being older has anything to do with it, so much the more reason for dealing gently with the recruit. No doubt he exemplifies in his own person the attitude he wishes the recruits to assume, but he does so only occasionally and momentarily. They are compelled by him to *maintain* this attitude, while he walks about with his hands behind his back. By an application of the law of survival, or rather non-invaliding, of the fittest, he remains to victimize as he has been, perhaps, victimized, to some extent himself.

Let us now approach a body of dilated recruits as they are being drilled, and examine one of them. The first thing to be noticed is that there is great elevation of the ribs of full inspiration, even the scaleni muscles being in action. There is also great depression of the diaphragm; and the sternum is thrown forward. Our eyes are just being attracted to the abnormal character of the heart's impulse, when we mark with surprise that this distended condition of the lungs does not give place to a properly performed expiration; that little descent of the ribs occurs, or adequate elevation of the diaphragm: in other words, that the act of expiration is, to a great extent, in abeyance. This, because the recruit knows that he must, at all risks (discomfort notwithstanding, in most cases it does not amount to more at first), keep his chest expanded. Now, what consequences must certainly follow when this so-called training is persisted in day after day. I shall not speak of the heart just now; the consequences to it, of this training, are direct and immediate, as well as indirect. We know how inter-dependent the heart and lungs are; how influences affecting the heart soon affect the lungs, and *vice versâ;* but it must

at once occur to the mind that, not only will the forces by which the important act of expiration is to a large extent accomplished in health (the elastic recoil of the lungs and of the chest walls) be, by repetition of this training, gradually diminished in power; but that, as the man stands before you, the blood in his lungs must be undergoing a deficient aëration. For as the diminution in size which takes place in the thorax when expiration is properly performed does not occur, it must follow that the air in the lungs charged with carbonic acid is not expelled to the usual extent to be replaced by new air from without. Now, in active exercise of any kind, it is of the last importance that expiration should be efficiently performed. Under these circumstances, a greatly increased quantity of carbonic acid having to be got rid of by the lungs, the respired, or charged, air needs to be expelled by strong expiratory movements, and fresh air inspired. In other words, the elastic power of recoil of the lungs and of the chest wall needs to be unimpaired. In very few soldiers have I found it so. The drill which the man before us is undergoing cannot be described as active exercise, and that is the only reason why the position is tolerable at all. Further reasons, showing that the chemical functions of the lungs are impeded by the maintenance of this attitude, will appear when the effect of it on the heart is being considered. Before proceeding to the latter I must add—what we should have noticed when inspecting the recruit at his drill—that in the gradual weakening of the forces by which expiration is normally performed, the overstretching to which the abdominal muscles are subjected by the training, is a very important factor. In normal expiration, the contraction of these muscles diminishes the cavity of the chest by pressing the viscera against the passive diaphragm, and so elevating it. In the artificial condition I describe, they are not only weakened by overstretching for this work, but their action is antagonized by the diaphragm being *kept* depressed.

I think it will be admitted, from the foregoing account (which I might extend by a full review of the mechanism of normal respiration—if this were necessary), that the degree in which the physiological conditions under which the expiratory act is performed in health is altered, is great. This alteration cannot take place with impunity. Pathological states commence when physiological conditions are departed from:—but I doubt, as concerning the result to the lungs, that the word "pathological" will be admitted by all. For myself, I am convinced that vesicular emphysema, to some extent, occurs in nearly all the men during the period of this training—from the continued and excessive distension of the air vesicles. Hypertrophy of the elastic parenchyma of the lungs might be expected to occur on the "ubi stimulus ibi fluxus" principle; but if it does it will not be compensatory and tending to the restitution of expiratory power; but will cause pressure upon, stretching of, and partial obliteration of, the functional blood-vessels,—the pulmonary capillaries. I conclude, then, that you may increase the measurement of the recruit's chest rapidly in this way; but that you do so at the expense of its mobility—at the expense of vital capacity: and that the recruit is thereby more or less unfitted for active exertion—one reason for which result I have already given.

It has been shown that, sooner or later, the drill becomes distressing to the recruit. He is distressed, but still uncomplaining. It will be right now to inquire why it should so distress him. If good reason can be shown why it must distress him, and in some cases (as Mr. Myers has it) even "exhaust" him; it being at the same time admitted that exhausting, or even distressing, drill, cannot commend itself, on due consideration, to any well-regulated mind—then I consider that a claim will have been established to have this injurious drill discontinued. We noticed when inspecting the recruit at his drill that the cardiac impulse was abnormal. We must now see more minutely what is taking place. We cannot hear his heart beat as we stand before him—I daresay he hears it himself and feels it too—but we can learn a great deal by watching the cardiac region narrowly. The organ, as I said, suffers early; and even before the man thinks of complaining a pathological condition has commenced.

I propose, then, 1st, to describe the abnormal manner in which the heart acts in the dilated chest; 2nd, to give the causes of its abnormal behaviour; 3rd, to state why both one and the other (*i.e.*, the effect and its causes combined)

produce exhaustion, or distress, or discomfort, or a mere feeling of irksomeness, as the case may be. Lastly, to consider the pathological states of the organ which may be induced.

Now, I shall be excused undertaking for a few moments this task, which is the chiefest part of the inquiry in hand, in order that I may disclaim any intention of exaggerating the consequences of this "training." A cause loses much by being over-stated: more especially a cause like this, with tradition, prevalent mistaken notions of what "physique" means, military views, popular ideas, all against it. I would even take lower ground than Mr. Myers takes in the paragraph which I have quoted from his essay, lest it should be thought that I merely argued from the true and weighty statement which he makes, and leaves unsupported. It will be understood that I raise an issue quite distinct from the question of tight uniform and accoutrements, to which I shall, however, just allude presently. Now, pathological processes of great importance may proceed very quietly, and attract at first no attention on the part of the sufferer. Let us say the average recruit—speaking of those who withstand it best—would describe his dilating drill as merely irksome; or he might call it discomfort: I do not think he would often call it distress—at least in the earlier days. Some find themselves much distressed. But when the course of drill is over, he is just in the condition of heart (as we shall see) to be most injuriously affected by the next part of the training. For now come the pack, and the straps, and the rifle—too soon;—for of the many hearts whose irritability or actual hypertrophy, established in the drill-field, had not been so great as to cause complaint to be made, what a large proportion will rebel at the additional load. If only an interval of rest had been given for that great power of recovery which the heart, in common with all other organs, possesses, to come into play, very many who are ultimately invalided, or who die, might be saved to the service. Officers in whom this "chest" drill induces this condition—about to be more fully described—are saved at this stage. There is no pack for them. They are free to recover—the private is not. Further, I would not be understood as saying that, in a short time, the men who suffer break down utterly, and become unfit for duty of any kind. This is the result to many of them. But I am sure that in the great majority of cases of heart complaints invalided (other than those brought about by rheumatic fever, Bright's disease, &c., of which the history is to hand), the early link in the pathological chain was forged on the drill-field. There has preceded the date of appearance at hospital a long period of uncomplained-of discomfort, often distress; consisting of breathlessness on slight exertion, headache, and "beating." Now exertion has become unbearable. A man who never knew he had a heart (an expression many a soldier has used to me), becomes aware of his possession after a few months' dilating drill. He blames his recently-donned pack and traps for his trouble; forgetting that as a civilian he could have carried them manfully across country for ten or fifteen miles. Now, has this man been enlisted by mistake? Or have we made him what he is?

This has proved more of a digression than was intended. To return: We find then, firstly, that in the distended chest the cardiac impulse is lower down, and nearer to the middle line than it ought to be—the site of impulse often varying in successive beats: its area appears to be increased; it can be even *seen* to be abrupt and jerky, and in many instances there is marked epigastric pulsation. On placing the right hand firmly against the cardiac region, and the left on the back, we find the cardiac systole to be much more powerful than is natural; so much so sometimes that it shakes the body visibly. We are surprised at this, for the man has been only standing; and this excited action exceeds what would be expected even during active exercise. The condition of the walls and floor of the chest is maintained as before described; the respiration (shallow, and therefore increased in frequency), being performed by deficient elevation of the diaphragm (complete relaxation of it being prohibited) and very slight descent of the ribs; followed by the only further enlargement—by way of inspiration—that can take place: and this is very small, for lateral expansion has already been attained almost to the uttermost limit. The heart contracts about 110 times in the minute, the rhythm being irregular both in time and force, in many cases. The right ventricle is found to be acting unduly. The respirations average 40 in the minute. There is a curious mixture

of anxiety and resolution visible in the recruit's countenance. The man before us may have no hypertrophy as yet ; and no murmurs indicating valvular inefficiency can be heard.

Now, secondly, the state of heart just described points to impediment—to obstruction to the circulation. We shall now see how the obstruction comes about. Tight clothing, &c., may well be a cause of obstruction from without. I shall show that the attitude which the recruit is compelled to assume and *maintain* (for here lies the mischief) is a cause, more powerful, of obstruction from within. Let it be remembered that "as the thorax is a closed cavity, in which a partial vacuum is produced by the act of inspiration, whilst its contents are compressed by the act of expiration, the former state will favour the movement of blood from the large veins on the exterior of the cavity towards the heart, whilst the latter condition will retard it." This quotation is from Carpenter's Physiology. This author then proceeds to detail an experiment (to quote again) "showing the suction-power of the inspiratory movement, and the expellent force of the expiratory act." I will, further, copy the sentence next following in this well-known work. It is this :—"On the other hand the expiratory movement, while it directly tends to cause accumulation in the veins, will assist the heart in propelling the blood in the arteries." Can any one question the importance of these (or of any other) physiological laws? What, then, if the act of expiration be, to a great extent, in abeyance? A disturbance of the balance, which exists in health, between the pulmonary and the systemic circulations. This is the inevitable result—as we shall see. But will not the balance be restored as soon as the recruit is free from his tormentor, and allowed to breathe as nature would dictate? Yes, the balance will be gradually restored, and the heart will become quieter, only to be disturbed again at the next drill-hour. This is the manner in which we produce "physique"—the synonym for looking formidable on parade, and being useless for work : or else for doing the work in a condition of discomfort, distress, or exhaustion, as the case may be. I regret that I am betrayed into remarks such as these ; but the British soldier is very brave. No man likes to "give in" less than he does. It is nothing short of pitiful to see him trained to break down, when the necessary "physique" might be secured by a little judicious padding, instead of at the expense of the heart and lungs. Considering that he is selected for being likely to prove efficient, I hold that—in time of peace at all events—the chances as regards heart disease are in his favour, rather than in favour of the civilian. I cannot now discuss this point. I am endeavouring to confine myself to the question of the artificial dilatation of the thorax embodied in the order "Swell your chest" ; and just now to the manner in which the balance of the two circulations is disturbed by it—but I commend it to the serious consideration of the surgeons of the army, as being a tenable position, if only we would allow the soldier to breathe at all times physiologically as the civilian does—tight clothing and weight-carrying, in both cases, notwithstanding. The inspiration, then, a deep one—which the recruit takes at the word of command—produces physiologically an acceleration of the movement of blood from the large veins on the exterior of the chest towards the heart, which movement of blood towards the heart *had been retarded by the previously-occurring and duly-performed expiration.* Now, as expiration is not, after the word of command, again duly performed, and as the position of the thorax is one of deep inspiration and remains so—the diaphragm doing little to diminish the size of it, and the elastic recoil of the lungs and chest-walls being overcome by voluntary effort, does it not follow that, in a given time, a larger quantity of venous blood will have passed into the right side of the heart than would have passed if the check, or retardation, which the expiratory movement properly performed exercises, had been imposed? I do not quite contend for a "vis a fronte" ; if that were established for a moment, it would soon be disestablished. The right ventricle contracts vigorously, but the blood it drives forward for aëration cannot part with as much carbonic acid, or receive as much oxygen, as if respiratory movements were normally succeeding each other all the time. The degree in which the exhalation of carbonic acid suffers hindrance is in direct proportion to the impurity (CO_2) of the air in the ultimate air-vesicles. This air is only changed (if it can be spoken of as being changed) by the law of diffusion of gases ; but in the absence of efficient

expiratory movements this law is at a considerable disadvantage, for the purpose required. If the recruit be now required to double—and when he is, he must maintain the same dilated state of chest, or be struck by the drill-sergeant below the epigastrium with a pace-stick—the dyspnœa is quite urgent. The right ventricle is much embarrassed. Now, this training causes dilatation in some, hypertrophy in others, both in most of those who suffer. Some do not appear to suffer. On inquiry you find these latter are nearer twenty-four than eighteen years of age. Even these may be the worse (without knowing it) for the drill. I would once more recall Mr. Myer's remarks to notice—the "severity" of the drill—the "exhaustion" he has seen. I think dyspnœa would be a good name to give to the exhaustion. Without saying more, it would call up the conditions which give rise to it. Dyspnœa in the recruit's drill-field means obstruction to the circulation, and obstruction to the circulation means excessive strain on the heart. This, again, means pathological changes in the shape of hypertrophy, with or without dilatation; and this, further, *may* mean (though, perhaps, it rarely does) inefficiency of the valves—for, if the orifices increase in size, the valves do not.

Now, the systemic circulation is also injuriously affected, for the engorgement of the lungs, arising as described, must, however slight, result in a retardation of the current of blood in the pulmonary veins, which is taking place towards the left heart: and not only so, but the arterial blood reaches the left ventricle insufficiently oxygenated, and also in deficient quantity. For, not only is the lining membrane of the pulmonary veins extremely sensitive to the passage of impure blood, but a most important movement—which is, perhaps, one of the chiefest aids to the advance of the arterialized blood towards the left auricle—the expiratory movement, is being held in check. The force of the right ventricle may be said to be expended in sending the venous blood to the pulmonary capillaries, and as some obstruction is already there, the pressure exercised normally on the pulmonary veins in expiration is much needed to maintain the circulation in them. The right ventricle does all it can, and hypertrophies, that it may do more by and bye. The left ventricle receiving blood deficient in quantity and in degree of aëration, the wants of the system are not duly supplied, and the muscular and nervous structures of the heart itself must suffer. But the contraction of a deficiently-filled ventricle is mischievous to the ventricle, as is also that of an over-distended one. And distension of one side, and insufficiently-filled state of the other, constitute, it must be admitted, a disturbance of the balance of the two circulations. Can we wonder, then, that when examining the recruit at his drill, we found his heart in the condition described? Is there not ample cause for it? The fact is, that expiration is forgotten (what does the drill-sergeant know about it?), and the erroneous opinion prevails that the man with the dilated chest is a fine, able, soldierly, fellow, although he might not be able to blow out a candle at a distance of two and a-half feet.

We shall see, on a little further inquiry, that the "swelling" of the chest, ordered by the drill-sergeant, is totally indefensible; and nothing but evil can follow it. It should be recognised that the full powers of expansion of the lungs should never be exerted by an effort of the will—except under peculiar circumstances. For instance, the singer—in anticipation not of the requirements of the system, but in order that he may have the requisite amount of air to expire for the execution of a passage which would suffer in effect if broken by a fresh inspiration—expands his chest to the full extent, to contract it again gradually but *immediately by a correspondingly deep expiration.* We take the same precaution in reading aloud, if we do not wish to draw our breath in the wrong place. It is for such requirements as these that the respiratory movements are placed so much, in the human subject, under the control of the will. But who will show that the breathing of the soldier on parade, marching, or doubling, should be conducted otherwise than automatically? The chest movements ought to vary in extent in accordance with the amount of blood sent into the lungs for aëration; which amount of blood, again, ought to be regulated by the natural forces which accomplish the movement of blood in the veins: but they ought not to be impeded by attention being in any way directed to them. Much less should they be grievously hampered in the way I have described. The movements of inspiration and

expiration (to put it more plainly) increase in depth, when the body passes from a state of rest into one of activity, for two reasons. Firstly, because the blood reaching the pulmonary capillaries is now flowing towards them more rapidly, owing to the pressure exercised, by the muscles, on the veins throughout the body. Secondly, because the demand for oxygen by the system is increased, owing to the increased chemical changes which take place as a consequence of muscular contraction. Now, the degree of chest-expansion which the recruit, as he stands to be drilled, is made to assume, is greater not only than would be automatically dictated by the conditions in which he is placed, but is even greater than that occurring as the physiological consequence of active exercise:—a degree of expansion, indeed, which *ought* to imply that vigorous muscular aid to the venous circulation was obtaining, and that, too, accompanied by movement of (as against a stationary state of) the body. Let us add these two conditions, making the man double—remembering that the chest *must still be kept* fully expanded—and what do we produce? At the very least we produce, as already shown, lung congestion, embarrassment to the right ventricle, and the consequent troubles which I will not again write of.

We come, thirdly, to the manner in which the recruit's distress is brought about. I find I have written diffusely, and that, under the previous headings, I have, perhaps unavoidably, shown that dyspnœa is a certain consequence of the respiratory movements being impeded. I need not now repeat how: but I will say once more that expiration is as important as inspiration. For four hours a-day is that important act, to a great extent, in abeyance—and that for a period of about six months—for the recruit. Dyspnœa then, according to its degree, involves exhaustion, distress, discomfort, or a mere feeling of irksomeness, as the case may be. I have said that those who most accurately carry out the drill-sergeant's orders suffer most. Now, some men can attain, owing to their figure in general assisting the effect, a degree of thoracic prominence sufficient to please the military eye, without any very great hyper-distension of the lungs with air. Even for these the word "irksomeness" would, as a rule, but feebly express their sensations. There are other men who, being less shapely—being, indeed, younger and unformed—can escape rebuke (and such rebuke! consisting of blows over the solar plexus, and very hard words) only by distending the chest with air to such an extent as speedily induces almost a doubling of the pulse-rate: of which result the deficient supply of blood to the left ventricle is the explanation. *These* men are distressed urgently, *in a few minutes*. An order to "stand easy" has not yet restored the disturbed balance of the pulmonary and systemic circulations, when this unphysiological process is commenced anew. This is obstruction to the circulation from within. It is worse than that (of tight uniform or accoutrements) from without. For, in the latter case the cause of the mischief is apparent to the sufferer—he can, and does in the fight, remove it. But he cannot know—and if he does he cannot remove—the disability inflicted on him in the drill-field: the existence of which it only required a little extra work and weight-carrying to make manifest. I say "a little" advisedly: for before enlistment has not the recruit either laboured all day in the field, or worked at his trade all day long with impunity? He must have done so, or he would not have been enlisted. The results of acute rheumatism to the valves we know: the palpitation and irregularity of heart's action due to anæmia, general debility, or hysteria, we also know: but what is this? It is the result of the recruits being "perfectly exhausted by their morning's drill," and afternoon's drill too, day after day. Even if it could not be shown to be injurious, does not common sense disavow such a mode of training? Mr. Myers condemns it from this point of view, giving no reasons. It may well be that he thought they were unnecessary. He holds this mode of training to be "one, which, *with the present uniform*, is apt to lay the foundation of much heart disease in the army." Now, in support of Mr. Myers' opinion to a certain extent, and in continuation of, or deduction from, my argument, I will state that the training of the recruit as now carried on is—with, *or without*, the present uniform—*certain* to lay the foundation of much heart disease in the army. Dismissing this important subject in a few lines, Mr. Myers says: "The training of recruits should extend over a longer period." This would be quite unnecessary, as far as regards their well-being: the cause of the distress being pointed out, remove

the great element in the training which induces it. Mr. Myers proceeds: "and, like gymnastics, should not be severe at first." It should not be severe first or last. Train a man for severity, but, in the training, stop short of severity. I am now alluding to natural fatigue—the result of healthful work or training—which, of course, should not be excessive, except for urgent military reasons.

Fourthly, and lastly, what pathological changes may be induced by recruit's drill?

It is too much the habit to say that cardiac affections are merely functional, when we do not happen to hear cardiac murmurs. Functional disturbances of cardiac action may be and often are accompanied by murmurs; but, when do we see such a case in the soldier? The fact is that, examine as we may, we cannot find the organ, or decide upon the general condition—say of anæmia or plethora—which is to blame for this so-called "functional" disturbance, in the soldier. The case, at first sight, looks much less urgent, much less serious, than functional derangement, properly so called. Look, then, for organic disease. What other name can you give to hypertrophy? This is not to say that you cannot have a case of irritable, or "soldier's heart," without manifest hypertrophy; but neither is it to say that "soldier's heart" does not result from organic changes in the organ. Hypertrophy is very common in the army, and the manner in which it is certainly, by this drill (perhaps sometimes recovered from), brought about (commencing in the right side) has been shown. Now (without repeating how), we saw that the blood reaching the left side of the heart was deficient, not only in degree of aëration, but in quantity, during the drill. The coronary arteries, then, convey more or less impure blood, in a deficient stream, to the muscular and nervous tissues of the heart. We also saw that the expiratory act is a powerful aid to ventricular contraction (Carpenter). The conditions of healthy ventricular contraction being so much altered, is it to be wondered at that rhythmical irregularity—due to partial arrest of the ventricular contraction—may be produced by a disturbance of the balance of power between the pneumo-gastric and the cardiac ganglia? Or, more commonly (Dr. Fothergill says), between the opposition offered to the blood to be driven and the power to drive it? Rhythmical irregularity is frequently associated with dilatation—though not necessarily so. We have a case of it now in hospital, of which the immediate exciting cause appears to have been very excessive muscular effort, in that much-to-be-condemned sport called "tug of war." (May I remark that when the tug of real war comes, such supreme muscular efforts are not wanted: staying power; weight-carrying power; presupposing an unimpaired condition of the heart and lungs—these are the qualities we look for.) There was no tight clothing in this case; but the right ventricle suddenly received more blood than it was able to dispose of, by the general and excessive muscular pressure on the venous system. This by the way. Valvular deficiency, though the valves be healthy, may result from distension of cardiac orifices. It would be beside the object of this paper to allude further to the possible consequences of the mischief commenced on the drill-field. It is right to say, however, that the great majority of the soldiers do not *complain* of recruit's drill. They endeavour to adapt themselves to, and to put up with, their new life and the inevitable distension; knowing that the better they do it, the sooner will they be delivered from the tormentor. Now, I will say again—though much repeating myself, I fear—that albeit the pack and other accoutrements may bring the mischief to light, they have only aggravated what they have been supposed in all cases to originate; *i.e.*, the excess of heart disease which obtains in military as compared with civil life.

I submit that I have shown that the mode of dealing with the recruit's chest is artificial, being in contravention of physiological laws; that it is injurious, and that to the most important organs of the body: that the causes of the visible embarrassment of the recruit's heart under training have not, in his interest, been sufficiently considered: that the embarrassment of the heart itself, which the training infallibly induces, has not been suspected of a significance that its continuance for many months for three or four hours daily might (as it does), induce organic disease;—in a word, that the recruit is the victim of the drill-sergeant's ignorance and superstition. I will add (though I

deprecate making any remarks that may appear to be beside the question), that the evil is all the greater because it is done in the name of good. It is difficult to root out errors that have long prevailed, and the army is very conservative. But this expiration question ought to be attended to. The remedy is quite a simple one. It could be effectively detailed on one of these sheets of paper—and handed, if authority were given—to every sergeant or corporal who hence-forward drills a squad of recruits. The men would work well because they would feel well; they would go through thrice the amount of actual exercise, and return to their barrack-rooms undistressed and un-"exhausted." For, were they not selected only the other day as in all respects eligible? This point does not receive the attention it deserves. We ought not to treat it as inevitable, or say, in an indifferent, off-hand, way, "better invalid him," when we find a young soldier of only a few year's service--who has yet had none of the vicissitudes, but the contrary, of military life—never abroad perhaps, better off in, than ever he was out of, the Service—suffering from hypertrophy or dilatation, or both, or these combined with and causing valvular insufficiency. There has been no rheumatism or Bright's disease. He may have had syphilis. (Comparatively, how few heart affections can be put down to this cause?) Why is his heart hypertrophied? Why is he breathless except when at rest? Because he has been a "man of war" (without seeing war), for a year or two? What would have been the chances against his finding himself in his present plight if he had remained a civilian? Shall we put it all down to the tight tunic and accoutrements, or shall we pay any attention to what has preceded the wearing of them; namely, the distress and "exhaustion" of recruit's drill (according to Mr. Myers' testimony); the departure from the physiological conditions of the circulation and of respiration, which I have shown that drill to entail. What shall we assign as the cause of hypertrophy already developed in recruits not yet "dismissed drill," and who have been "trained" in a loose serge frock? I have several cases of this kind now under observation. Some of them complained of "beating," others were discovered accidentally. Will it be admitted that a case is made out for the recruit? or are we to fall back on tobacco, alcohol, excesses of any kind, except excess in military chest-making—for causes of this most common disability? Courts-martial are frequent. Do we not all know the soldier, who says he is "all right," whom, when we examine, before writing the required certificate, we find in the condition I describe? I am sure that if this mischief were not so universal, I would have modified the certificate many a time when I have not done so; and I might be slow to confess that I have often certified men to be fit for hard labour, trusting that, if it were awarded to them, they would, when in distress, appeal to the medical officer of the prison; if I were not obliged to reflect that discipline must seriously suffer if men, who state that they are "all right," were shielded (as it would *appear*) gratuitously. We are aware what a striking contrast would appear if the state of heart of, say, 50 civilians were compared with that of 50 soldiers—taking those who have never been known to complain of cardiac trouble—and taking any civilian men haphazard of about the soldier's age. The soldier ought to have the advantage here. But he has not. The civilian can accomplish the distance, and carry the weight with less distress than the soldier. Why? Because the soldier has been trained. Mr. Myers compares the amount of heart disease in the Foot Guards with that in the Metropolitan Police, with the usual result. The soldier suffers most. Now, I confess I do not know whether the tunics of the police can compare in degree of tightness with those of the Foot Guards. They seem trim enough, and tight about the neck. Their accoutrements, too, may be less of a load; but may I not suggest that there is a great difference in the amount of "chest-drill" performed by these two bodies of men. Although I make these remarks, I do not want them to be regarded as more than supplementary. The position I have tried to maintain is, that the recruit is compelled to outrage physiological laws, and that he must, and so must the Service for making him, pay the penalty. This is higher ground than as yet been taken in view of clearing up the question of the excess of heart disease in the army. I trust the surgeons of the army will take the matter up.

There are a few points, which I will not now touch upon, having an important bearing on the training of the recruit. These involve a consideration of the

influence on the heart of "extension motions," done by the arms, while the chest is fully expanded and the body stationary; of gymnastics; and other matters of lesser importance:—If there should appear any inclination on the part of the military authorities to abandon the present evil way of drilling recruits, these points can be quickly stated at another time, together with plain directions as to the manner of avoiding the injury to the heart and lungs now being inflicted. I am now glad to dismiss the subject—hoping that I may have succeeded in directing to it the anxious consideration, which I am convinced, it deserves.

Vue du Lac, Guernsey,
August, 22, 1877.

APPENDIX No. VII.

REMARKS ON THE NORMAL TEMPERATURE OF THE BODY IN THE TROPICS.

By Surgeon-Major J. Crosse Johnston, M.D., in Medical Charge, 43rd Regt.

The normal temperature of the body in temperate climates, is given in text books as being about 98°·4 in the axilla, and 99° in the rectum, with some accession to this standard under exposure to high temperatures, such as is involved in residence within the tropics.

Assuming the standard as above given to be correct, observation has led me to doubt that the increase under the latter circumstances is either so constant or so considerable as has been assumed.

Dr. Becher's observations, as quoted by the late Dr. Parkes (Practical Hygiene, 4th Ed. p. 401), indicate an increase in body heat in the proportion of 0°·5 Fahr. for each degree of increase in the temperature of the atmosphere.

Taking, by way of illustration, the approximative mean temperature of this station at 80° Fahr., and that of Netley at 51°, we should expect to find, in conformity with the above rule, that the usual temperature in the axilla of healthy persons at Bellary would be about 99°·9.

As the matter is of considerable interest and importance, it has been thought desirable to submit it to the test of observation.

The accompanying table exhibits the result of 224 readings taken from observations made night and morning for seven days consecutively upon 16 men in fair health, and who had not been less than three years resident in India.

The highest readings were noted in the case of No. 5 (Kenny), and concerning whom there appeared subsequently reason to believe that he had been suffering from some slight constitutional irritation.

The mean temperature of the air at Bellary during the time (September, 1876) when these observations were made, is given at 81°·7. The corresponding approximative mean temperature at Netley for the same period being taken at 58°·7, the observations at the former place should have exhibited a mean of 99°·6, but the observed body heat had in fact a mean of 97°·63, or 1°·97 less than would result from the application of Dr. Becher's formula.

So far as they go, these observations indicate a diminished rather than an increased ratio of temperature in inter-tropical life, the readings yielding an average of more than three-quarters of a degree below the standard of temperate climates.

P.S.—Some doubt having arisen as to the accuracy of the thermometers employed in the observations quoted in the foregoing remarks, a supplementary table of temperatures, including 320 readings, has been prepared, the records being the result of very careful experiment, and exhibiting a mean temperature corresponding very closely to that first arrived at, viz., 97°·74, notwithstanding that different instruments have been used.

Bellary, 6th January, 1877.

CHART OF NORMAL TEMPERATURE.

No.	Days ... ... Names.	1st		2nd		3rd		4th		5th		6th		7th		Average.			Mean temperature of the whole.
		M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	Mean.	
1	Preston	97·40	97·20	98·00	97·60	97·40	98·00	97·20	98 40	97·40	98·00	97·20	98·00	97·40	98 60	97·42	98·02	97·70	
2	Williams	98·00	97·20	97 00	97·40	97·20	97·60	97·00	97·20	97·20	97·40	97·00	97·60	97·00	97·00	97·48	97·34	97·27	
3	Jones	97·00	98·20	96·80	98·20	97·00	97·40	97·00	98·20	97·40	98·00	...	...	...	...	97·04	98·00	97·52	
4	Craven	96·60	98·00	96·80	97·60	96·20	97·00	97·00	98·00	97·00	97·20	97·60	98·40	96·60	99·00	96·80	97·90	97·30	
5	Kenny...	98·20	99·20	98·00	98·40	98·00	100·00	97·40	97·00	98·00	100·00	98·40	100·00	98·40	99·00	98·05	97·08	98·25	
6	Mitchell	97·00	96·80	97·00	97·40	96·40	97·80	96 40	96·80	97·00	97·40	97·00	98·00	96·80	97·20	96·80	97·30	97·07	
7	Fisher...	97·80	98·00	96·80	98·20	97·20	97·80	97·00	97·60	97·40	96·80	97·00	98·00	96·80	98·00	97·01	97·08	97·45	
8	Mahoney	97·40	97·20	98·80	99·20	97·40	98·20	97·00	98·40	96·80	97·00	96·80	97·40	97·00	97·40	97·70	97·80	97·92	
9	Rooke...	96·80	97·80	97·00	98·40	97·00	97·40	96·80	97·60	97·00	97·40	97·00	98·20	97·80	98·20	97·05	97·80	97·45	97·63
10	Maxwell	97·50	98·40	97·20	98·00	96·80	97·00	97·20	98·20	97·20	97·40	97·40	98·40	97·40	98·00	97·30	98·02	97·70	
11	Riches...	98·00	98·00	97·60	98·40	97·20	98·40	98·20	98 20	97·80	98·20	97·40	98·40	98·00	98·60	97·70	98·30	98·02	
12	Lonergan	96·40	98·60	97·80	98·60	97·60	98·20	97·20	98·40	97·40	98·60	97·00	98·40	97·20	98·40	97·20	98·30	97·98	
13	Galbraith	97·60	97·40	97·80	98·20	97·60	97·80	97·40	97·80	97·60	98·00	97·80	98·00	97·40	98·20	97·60	97·90	97·97	
14	Etheridge	97·00	97·80	97·60	98·60	97·60	98·60	97·80	98·00	98·60	99·00	98 20	98·00	97·40	98·40	97·60	98·30	97·90	
15	Williams	96·40	98·20	97·00	97·60	96·80	97·00	96·00	97·00	97·40	97·20	96·80	97·20	98·00	98·40	97·00	97·51	97·25	
16	Weymouth	96·80	97·00	96·60	97·00	97·00	98·00	96·40	97·40	97·00	97·00	97·60	98·40	97·60	98·20	97·00	97·57	97·29	

Temperatures of 16 Healthy Men, as observed Night and Morning for one Week.

Bellary, September, 1876.

J. CROSSE JOHNSTON, *Surgeon-Major, Army Medical Department.*

CHART OF NORMAL TEMPERATURES (SUPPLEMENTARY).

No.	Days ... / Names.	1st M	1st E	2nd M	2nd E	3rd M	3rd E	4th M	4th E	5th M	5th E	6th M	6th E	7th M	7th E	Average. M	Average. E	Average. Mean.	Mean temperature of the whole.
1	Norry	97·60	97·00	97·00	97·00	98·00	98·00	97·00	97·80	97·00	99·00	97·60	97·40	96 80	98·40	98·28	97·80	97·54	
2	Potther	98·00	99·40	97·00	98·00	97·80	98·00	...	...	...	...	...	...	...	...	97·60	98·46	98·03	
3	Harrop	98·40	98 00	97·80	98·00	97·00	97·60	98·00	97·80	97·80	98·40	97·80	98·20	97·40	97·80	97·75	97·94	97·84	
4	Parker	97·20	97·80	97 40	98 00	98·00	98·40	97·80	98·00	97·80	98·60	97·60	98·40	97·20	98·00	97·57	98·17	97·87	
5	Rycroft	97·80	98·00	97·60	100·20	98·20	98·00	98·40	98·60	98·40	98·00	98·40	98·40	97·00	98·40	97·97	98·42	98·19	
6	Barden	97·40	97·80	97·20	98·00	97·60	98·00	97·80	98·40	97·00	98·60	97·40	98·00	96·80	98·60	97·31	98·20	97·75	
7	Williams	97·00	97 40	97·00	98·00	97·80	97·80	97·60	97·80	97·60	98·20	97·60	97·40	97·60	98·00	97·45	97·80	97·62	
8	Flynn	97·00	97·80	97·20	98·00	97·60	98·00	97·60	97·60	97·80	98·00	97·00	98·20	97·40	98·40	97·37	98·00	97·68	
9	Brayne	97·00	98·40	96·80	97·80	97·00	97·80	97·00	98·40	97·40	98·00	96·80	98·00	97·20	98·00	97·03	98·55	97·79	
10	Beasely	97 60	98·20	97·60	98·40	97·00	98·00	97·20	98 00	97·60	98·00	97·20	98·40	97·40	97·80	97·34	98·11	97·72	
11	McCoy	97·40	98·00	98·00	98·60	98·20	98·40	96·80	97·80	...	...	...	...	...	...	97·60	98·20	97·90	
12	O'Flaherty	97·20	98·40	97·40	98·20	97·40	98·40	97·20	98·00	98·00	98·20	97·20	98·60	97·60	98·20	97·57	98·28	97·92	
13	Chambers	97·20	98·20	98·00	98·60	97·60	97·60	96·60	97·40	97·20	98·40	97·60	98·20	97·60	98·00	97·40	98·05	97·72	97·74
14	McCarthy	97·20	98·00	97·40	97·40	96 80	98·40	97·40	98·40	...	...	...	...	...	...	97·20	98·10	97·65	
15	Burke	97·80	98·40	97·60	98·40	97·40	98·20	97·60	98 20	97·80	98·40	96·00	98·40	96·80	98·20	97·25	98·31	97·78	
16	Jones	96·80	97·60	98·20	98·40	97·20	98·40	97·00	98 20	97·60	98·40	97·60	98·00	96·80	97·80	97·17	98·31	97·74	
17	Bullen	97 00	98·40	97·40	98·40	96·20	97·80	97·00	97·80	97·40	98·60	97·20	98·40	97·00	98·00	97·12	98·20	97·66	
18	Hassill	97·00	98·00	97·60	98·20	96·60	98·00	96·40	98·00	97·00	98·20	97·00	98·00	97·20	98·00	96·82	98·05	97·43	
19	Burton	97·80	98·40	97·80	98·20	96·40	98·00	97·20	98·00	97·00	98·00	97·00	98·00	97·00	98·00	97·17	98·08	97 62	
20	Wade	97·20	97·80	97·40	98·00	...	...	...	...	...	...	...	...	...	...	97·30	97·90	97·60	
21	Edwards	97·40	97·60	97·80	98·40	97·00	98·00	97·20	98·00	97·20	98·00	98·00	98·20	96·80	98·00	97·30	98·02	97·66	
22	Ramadroog. Bolver ...	98·00	98·60	97·80	98·00	97·60	98·50	97·00	98·50	97·00	99·20	98·40	98·00	97·80	99·00	97·80	98·48	98·14	
23	Robinson	97·60	98·60	98·10	98·30	98·60	98·00	97·50	97·60	98·20	98·40	98·60	98·20	98·10	98·40	97·08	97·32	98·21	
24	Donolly	97·60	98·00	97·60	97·80	98·20	98·60	97·60	98·60	97·30	98·20	98·00	99 00	98·00	99·00	97·82	98·45	98·13	
25	Wynn	98·20	·5	98·00	99·40	98·40	98·00	98·80	98·60	98 50	99·20	98·00	99·40	98·20	98·10	98·30	99·02	98·66	

APPENDIX No. VIII.

MEDICAL HISTORY OF THE LAROOT FIELD FORCE, INCLUDING TOPOGRAPHICAL AND DESCRIPTIVE REMARKS ON LAROOT AND PERAK, AND MEDICAL TRANSACTIONS OF THE BUFFS.

By Surgeon-Major G. S. Davie, M.D., in Medical Charge of the Buffs, and Senior Medical Officer, Laroot Field Force.

Preliminary remarks.

In consequence of the murder of Mr. Birch, the Resident of Pérak, at Passu Lula, and the subsequent threatening attitude of the Pérak Malays, the Straits Settlements Government applied to the Government of India for additional troops.

Although telegraphic communication between Penang and India became interrupted before further information could be obtained, the Indian Government at once made arrangements for forwarding assistance.

Troops selected for the expedition.

The troops selected for the expedition were the 3rd Battery, 5th Brigade Royal Artillery, quartered at Fort William, the 1st Battalion 3rd Regiment, the Buffs, quartered at Fort William, the 1st Goorkha Light Infantry *en route* from Dharmsála to the "Camp of Exercise" at Delhi, and C Company Madras Sappers and Miners from Rangoon; altogether, fully 1,200 men. Brigadier-General J. Ross, C.B., Commanding the Presidency District, was appointed to command the force. In the first instance, the force was known as the "Bengal Column Pérak Field Force," but on arrival at Penang, the designation "Laroot Field Force" was attached to it, to distinguish it from the force operating in Lower Pérak.

Before starting, a careful medical inspection of the European portion of the force was made, and all men not likely to stand the climate or the vicissitudes of active service were left behind.

Medical arrangements.

In communication with Dr. Kellie, Officiating Superintending Surgeon-Major, Presidency Circle, I made out indents for medicines, surgical instruments, appliances and hospital stores for the European portion of the force sufficient to last for three months. It was understood that the military operations would not extend over a period of six weeks. The medicines, instruments and stores were packed up in three distinct lots, the intention being, that in the event of portions of the force being detached, a complete hospital equipment would be available for each detachment. The lots were numbered 1st, 2nd and 3rd division respectively.

In correspondence with the Commissariat Department, estimates for medical comforts were made, and a liberal supply of everything requisite was furnished. Hospital bedding and clothing were provided at the rate of 10 per cent. of the strength. A suitable supply of disinfectants was put up in three lots.

The Barrack Department provided on requisition, camp furniture, portable commodes, mosquito curtains and two Macnamara filters for hospital use. Four Macnamara filters and pocket filters at the rate of 10 per cent. of the European strength were recommended for the use of the troops, but not sanctioned.

For the transport of sick, doolies with 6 bearers each were sanctioned to the extent of 3 per cent. of the European force, and 2 per cent. of the Native. In addition 24 dandies, without bearers, which had been used with the Looshai expedition, were added.

Surgeon-Major Collis, the Buffs, having returned to Calcutta from privilege leave of absence on the 17th November, completed the medical arrangements, which appeared to be as complete as the time would allow and the necessities of the expedition required.

It was originally intended that there should be one general hospital for both European and Native troops, so as to economise hospital establishments, but the idea was abandoned, and separate hospital establishments and equipments were provided for European and Native troops.

The following medical establishment was sanctioned for duty with the European troops :—Surgeon-Major W. Collis ; Surgeon-Major G. S. Davie ; Surgeon G. F. Churchill ; Surgeon E. Townsend, the Buffs ; Surgeon J. A. Gormley ; Apothecary J. A. Eliot ; Assistant Apothecary W. H. Lowman ; Assistant Apothecary A. Luke ; Passed Hospital Apprentice C. Carroll ; Passed Hospital Apprentice J. Bell ; Hospital Apprentice A. A. Allison ; Hospital Apprentice G. W. Hayden.

Twenty-nine hospital attendants :—2 compounders, 3 cooks, 6 water carriers 6 sweepers, 6 ward coolies, 1 purveyor, 2 clothiers, 3 washermen.

The doolie bearers did not form part of the medical establishment.

For duty with the Native troops, there were two medical officers—Surgeon-Major Oldham, 1st Goorkha Light Infantry, Surgeon Bomford, I.M.D., and 10 hospital attendants.

The Madras Sappers and Miners and a Kling Coolie Corps were under the medical charge of Assistant Apothecary Prichard of the Madras establishment.

Summary of operations (Military).

On the 20th November, 1875, the head quarters and two companies of the Buffs under the command of Lieutenant-Colonel Talbot A. Cox, and in medical charge of Surgeon-Major G. S. Davie, steamed from Calcutta in the hired troop-ship "Arabia," and, after a fine passage and without any sickness, reached Penang on the morning of the 27th November. The troops were comfortable on board, and the provisions were good.

On the 24th November, two companies of the Buffs, under the command of Captain Kerr, and in medical charge of Surgeon-Major Collis, sailed from Calcutta in the hired steam-ship "Abyssinia," and, after a pleasant voyage, reached Penang at noon on the 3rd December. One case of dysentery and one case of heat apoplexy occurred during the voyage.

A sailing ship, named the "Czarewitch," belonging to the Indian Government, containing the remainder of the Buffs and the 3rd Battery, 5th Brigade Royal Artillery, all under the command of Major F. Morley of the Buffs, in medical charge of Surgeon Churchill, was taken in tow by the "Abyssinia," and reached Penang all well at the same time.

On the 25th November, the hired steam-ship "Malda," with Brigadier-General Ross and Staff, and the 1st Goorkha Light Infantry on board, under the medical charge of Surgeon-Major Oldham, steamed from Calcutta and reached Penang on the evening of the 3rd December. Three cases of cholera occurred among the natives on board, one of which (a doolie bearer) proved fatal.

Arrival in Laroot.

The head quarters and two companies of the Buffs, which reached Penang on the 27th November, remained in the Harbour at George's Town, on board the "Arabia," till the 29th, and on the evening of that day, after embarking C Company Madras Sappers, which had just arrived from Rangoon, steamed for the mouth of the Laroot river. This was reached on the morning of the 30th, and a small steamer, named the "Langkat," arriving at the same time, the Buffs were transferred to this, and conveyed about nine miles up the Laroot river to a landing place named Teluk Kertang. About half-an-hour before reaching the landing place, it began to rain in torrents, and all got thoroughly drenched. A Chinese salute of three guns welcomed the arrival of the first European troops in Laroot. The rain ceasing after landing stores, the Buffs disembarked and marched over a very swampy road to a large village named Matang, one mile distant, where a shelter shed had been erected by Captain Speedy. Here the men had their dinner comfortably, and at 4 P.M. resumed their march, and at dusk reached a small village named Sampong, where they were accommodated for the night in empty houses.

The road was tolerably good. At Sampong the mosquitoes were very troublesome. Owing to some delay in getting the camp equipage up next

morning, an advance could not be made till 10 A.M. After an oppressive march on account of the heat, over a fairly good road, Bukit Gantang, nearly six miles distant, was reached at 12.30 P.M. The men were a good deal exhausted, and about 20 fell out, but soon recovered after a little rest and removing encumbrances from the chest. At Bukit Gantang the jungle had been cleared from a small piece of ground to serve as an encamping ground, and on the arrival of the tents, the camp was pitched. Before this could be completed, however, the rain came down in torrents, flooding the camping ground, and drenching everyone. A bright sun shewing afterwards the ground soon dried. Advantage was taken of a small stream to have a bathing parade, and this, followed by a tot of rum, refreshed and cheered the men.

Transport defective.

Owing to insufficient transport, a halt was made at Bukit Gantang till the morning of the 4th December.

Gapes Stockade occupied.

On the morning of the 2nd, half a company of the Buffs, under the command of Captain Graham, was detached to hold a stockade commanding the eastern approach to the Brapit Pass named Gapes Stockade. An hospital apprentice with a field companion and two dandies accompanied the detachment. The doolies (Morley-Collis) were *hors-de-combat*, although brought on empty, and had to be abandoned.

The mosquitoes swarmed in myraids at Bukit Gantang after sunset, and sleep till early morning, when they appeared to be satiated, was out of the question.

On the morning of the 4th December, sufficient transports having been procured for the men's kits and hospital stores, but not for the camp equipage, which had to be left behind, the march was resumed towards Campong Boyah at 6.30 A.M. After a pleasant march over a very unequal road, through paddy fields, a mountain pass (Brapit) and jungle Campong Boyah Stockade was reached at 9.30 A.M. Not a man fell out. Here shelter sheds were erected sufficient to accommodate 200 men, so that the camp equipage was not missed. The Brapit Pass appeared to be the boundry line between the zone of mosquitoes and rain and the opposite. For the first time, since the 30th November, there was no rain and no mosquitoes, and this pleasant state of affairs lasted during the five days' halt at Campong Boyah. Several European privates' tents coming up, I had one pitched in the centre of the stockade as a temporary hospital.

On the morning of the 8th December, the Madras Sappers coming up were pushed on to Qualla Kangsa to construct huts. On the evening of the same day, General Ross and Staff arrived. On the morning of the 10th, sufficient transport having been collected, the head quarters and one company of the Buffs marched towards Qualla Kangsa at 6.30 A.M. Half a company was left to hold Campong Boyah Stockade. Qualla Kangsa was reached at 9.30, although the road was simply an elephant path through dense jungle, paddy fields and swamps. Shelter sheds had been erected sufficient to accommodate 200 men, and these were occupied by the Madras Sappers and the Buffs. The Madras Sappers and a gang of Chinese carpenters were busy constructing huts, and in a few days huts sufficient to accommodate 300 European troops and a small hospital hut were constructed. As yet there was no sickness, and the men appeared to be in remarkable good health, although they had a rough time of getting to Qualla Kangsa.

It was intended that the Laroot Field Force, after arrival at Qualla Kangsa, should proceed down the river Pérak in rafts as far as Blanja, and there meeting General Colborne's force, pushing up the river, make a combined movement towards Kinta, the private residence of the Ex-Sultan Ismail.

Employment of the troops.

This plan was soon found to be impracticable, as materials for rafts could not be obtained, and boats were scarce, and, under the circumstances, a forward move was considered impossible. The troops were therefore employed all day clearing jungle. Meanwhile the remainder of the troops began to arrive.

On the 9th December, Surgeon-Major Collis, who had reached Matang, having experienced an attack of heat apoplexy, was sent back to the steam-ship "Arabia," and, for the time, the duties of senior medical officer devolved on me. On the 11th December, 24 gunners and 50 Goorkhas reached Qualla Kangsa. On the 12th, General Ross and Staff arrived, and gave impetus to jungle clearing and road making.

Two companies of the Buffs were sent from the mouth of the Laroot river to Malacca in the "Abyssinia," as it was feared that an outbreak would occur there. At the same time 36 gunners and 350 Goorkhas were sent to Rassa.

On the 14th December, 50 Buffs and 50 blue jackets, belonging to the "Modesti," arrived at Qualla Kangsa, and on the evening of the same day, 30 of the "Modesti" blue jackets proceeded to the bank of the river Pérak to seize several large boats.

They succeeded without opposition. On the 15th, 50 Buffs and 50 blue jackets belonging to the "Philomel," arrived under the medical charge of Surgeon Williams of the "Philomel."

The two companies of the Buffs which had gone to Malacca, after lying off that place for a few days, returned to the mouth of the Laroot river, and one company had reached Bukit Gantang when both companies were again ordered to Malacca, and there they remained in garrison till the close of the operations and the return of the Laroot Field Force to Bengal.

On the 17th December, Surgeon-Major Collis, although very weak, arrived in a doolie, and next day resumed the duties of "Principal Medical Officer."

On the 18th, 50 Buffs and 10 gunners under the medical charge of Surgeon Churchill came to the front. Surgeon Townsend was detained at Campong Boyah Stockade, and Assistant Apothecary Lowman relieved Hospital Apprentice Allison at Gapes Stockade, where there were now only 25 men under a subaltern. As the troops came up they were employed in clearing jungle, digging out roots, levelling ant hills and road making. It was hot and harassing work, but as yet did not affect the health of the men.

Reinforcements for Blanja.

General Colborne having reached Blanja, and meeting some opposition, applied to General Ross for troops; accordingly, on the 19th December, sufficient boats and rafts having been collected, 50 Buffs, 50 blue jackets of the "Modesti," and 50 Goorkhas, all under the command of Lieutenant-Colonel Storey, and medical charge of Surgeon Williams, R.N., proceeded down the river to Blanja at 8 A.M., and arrived at 5 P.M., the distance being about 20 miles. On the 20th December the last remaining 50 men of the Buffs arrived. On the afternoon of the same day, 20 of the "Philomel" blue jackets poled up the river Pérak in boats, a distance of two miles, to reconnoitre, and returned at dusk without having seen any signs of hostility.

On the 21st December, telegraphic communication was established between Matang on the Laroot river and Qualla Kangsa. The Malays in the vicinity of Qualla Kangsa appeared to be either frightened or sulky, and did not bring in any supplies, but otherwise did not appear to be unfriendly; and, in consequence, no defensive precautions were as yet taken. On Christmas Day games were got up for both officers and men, and proved an agreeable break in the monotony of ordinary fatigue duties.

On the 27th, a party of blue jackets poled up the river in two boats to Chuga Qualla, a distance of about 15 miles, and returned at 9.30 P.M., having seen little, and met no resistance. On the 2nd January, 1876, a party of blue jackets, accompanied by Mr. Maxwell, Political Officer, and some friendly Malays, proceeded up the river to capture three escaped convicts.

In consequence of a sudden rise in the river, they did not reach their destination as soon as they expected, and only succeeded in capturing one of the convicts, and him they hanged on the nearest tree. After burning the convicts' houses they returned to Qualla Kangsa unmolested.

Owing to the inhabitants of Kota Lama, a large village two miles up the river from Qualla Kangsa, showing signs of hostility, and using threatening language to the friendly Malays, stating that if the troops at Qualla Kangsa did not attack them, they would attack Qualla Kangsa, it was decided to disarm them.

Burning of Kota Lama.

Accordingly, early on the morning of the 4th January, 150 Buffs, 12 gunners with a gun and rocket trough, 20 blue jackets with a gun and rocket tube, and 40 Goorkhas, all under the command of Lieutenant-Colonel Cox, the Buffs, proceeded up the river Pérak. Colonel Cox with 100 Buffs, 12 gunners, and 20 Goorkhas, accompanied by Mr. Maxwell, the Assistant Political Officer, crossed to the left bank of the river in boats, and marched towards Kota Lama on the left bank. Fifty Buffs under Lieutenant Leslie, and 20 Goorkhas under

Captain Young, accompanied by Captain Speedy, the Assistant Commissioner, and some Sikh and Malay police, marched towards Kota Lama on the right bank. Twenty blue jackets under the command of Captain Garforth of the "Philomel" poled up the river in two large native boats. Brigadier-General Ross and Staff followed in a small steam cutter. Surgeon Townsend accompanied the Buffs on the left bank of the river. The Malays of Kota Lama on the right bank of the river quietly submitted to be disarmed, but on the left bank they seized their arms, shut up their houses and ran away. Colonel Cox having reported these circumstances to the General, and expressed his inability to surround the place with the number of men at his disposal, got orders to burn all the deserted houses. The Buffs burned a good many houses unmolested, and were burning away when the General and Staff, with a small escourt of Goorkhas, followed by some blue jackets, landed from the boats, and were shortly afterwards attacked by the Malays, who no doubt were watching their opportunity. After some smart fighting the Malays were beaten off, leaving several dead behind them. The loss on our side was severe. Major Hawkins, Brigade-Major, killed by a spear wound through the body ; one blue jacket killed by a spear thrust through the body ; one Goorkha killed by a spear thrust through the body. In every case penetration was from behind, and the body completely transfixed ; all the killed ran some distance after being wounded, and the Goorkha had just reached the hospital in a dandie when he expired. In addition, Surgeon Townsend, who had got separated from the Buffs, sustained a spear wound (severe) in the right arm, and another (slight) in the left leg, but was able to attend to the wounded afterwards. A marine sustained three spear wounds in the abdomen and hands, but lived till next day. Two Goorkhas were wounded in the arms.

The Buffs met no opposition, and after reaching the scene of action and burning a few more houses, returned without loss to Qualla Kangsa. When the Malays attacked, Lieutenant Leslie with his Buffs were brought across the river. The artillery also brought a gun to bear on the Malays.

Extra duties.

After this engagement there were rumours of assembling Malays, and, after dark Malays were seen prowling about in the vicinity of the camp causing alarms ; in consequence, Colonel Cox commenced to throw a palisading round the camp ; extra sentries and patrols were posted at night, and the troops told off to alarm posts.

These extra duties began to tell on the health of the troops, and dysentery of a severe type became prevalent. On the 9th of January an officer's servant and a Malay policeman were killed by the Malays between Campong Boyah and Gapes Stockade ; the same night the telegraph wire was cut and 30 yards of it carried away.

Malays attack working parties.

On the morning of the 14th January the Malays attacked the working parties on the south and north-west sides of the camp, probably expecting that they were unprotected by covering parties. They drove in the working parties and fired on the camp, one bullet passing through the hospital. The troops having taken their posts, soon beat the Malays off, and caused them considerable loss during their retreat. On our side one man of the Buffs was shot through the left thigh, and a sergeant of the Madras Sappers shot in the left thigh. During this encounter the Malays evidently got more than they bargained for, as they refrained from attacking working parties again, and satisfied themselves with attacking when there was no likelihood of any hurt happening to themselves. For example, on the 17th January two Sikhs carrying a mail bag were shot in the Brapit Pass, and the contents of the mai bag for the most part destroyed ; but it would not do to let this kind of work go on, so, on the morning of the 20th January, 120 Buffs and 40 Goorkhas, under the command of Major Morley, the Buffs, crossed in boats to the left bank of the river ; 20 gunners with 2 guns and a rocket trough, 50 Buffs and 40 Sikh and Malay police, marched up the right bank of the river, 25 blue jackets, in a gun and rocket boats, poled up the river, all were under the immediate command of General Ross, who went up the right bank of the river. Surgeon-Major Davie accompanied the troops on the right bank of the river, and Surgeon Townsend those on the left.

Second attack on Kota Lama

The troops under Major Morley having made a circuit of the village of Saiyon, opposite Qualla Kangsa, proceeded towards Kota Lama. The troops

on the right bank of the river, on arriving opposite Kota Lama, opened fire with shell and rockets, which was taken up by the blue jackets on the river, and by the troops which were at Qualla Kangsa under Colonel Cox. The Malays were completely taken by surprise, but before retreating, fired a few volleys on the troops on the right bank without result. On the firing from the guns ceasing, Major Morley's column advanced and caught the retreating Malays in flank, accounting for several of them. The Malays left war gongs, guns, rifles, muskets and arms of various kinds behind. All the houses left unburned on the 4th January were now reduced to ashes, and after a nine hours' outing, the troops returned to Qualla Kangsa without loss. The Malays must have suffered severely, as several dead bodies were afterwards found, and it is not the custom of the Malays to leave their dead behind if they can help it.

Arrival of the Goorkhas.

On the 26th January, 250 Goorkhas under the command of Colonel Clay joined the force from Rassa; 50 were detained at Bukit Gantang to assist Captain Speedy in capturing Kota Lama Malays, on some of whose heads a price had been put, but they did not capture any.

On the 28th January, Surgeon-Major Collis, who had never properly recovered from his apopletic seizure at Matang, applied for a medical certificate to enable him to proceed to Penang. He left on the 31st January, and the duties of senior medical officer again devolved on me.

On the morning of the 3rd February, information having reached that the Kota Lama Malays had again returned and challenged Raja Yusuf (Raja Muda) to fight, the Raja Muda with his Malays went after them, and in the afternoon 50 Goorkhas crossed to the left bank of the river, and 20 blue jackets poled up the river to assist. Surgeon Townsend accompanied the blue jackets.

The Goorkhas had some skirmishing with the Malays, but both blue jackets and Goorkhas returned at dusk without loss. The Raja Muda had two of his men killed and two wounded.

Third attack on Kota Lima.

At daybreak on the 4th February, 150 Goorkhas, under the command of Colonel Hill, crossed to the left bank of the river; 100 Buffs, under the command of Colonel Cox, 12 gunners, with one gun and rocket trough, proceeded up the right bank of the river; 25 blue jackets poled up the river in boats, all under the command of General Ross. Surgeon-Major Oldham accompanied the Goorkhas on the left bank, and Surgeon Townsend the troops on the right bank. The European portion of the force took half rations, and the Goorkhas a day's rations, together with their waterproof sheets and blankets.

Enugar burned.

On reaching Kota Lama, the Goorkhas exchanged some shots with the Malays, and the Malays of a village named Enugar opened fire on the troops on the right bank, but were dislodged with shot and rockets; the Goorkhas then coming up reduced the village to ashes. It appeared that the chief of this village was engaged with his men in the attack on the working parties on the 14th January—hence the retribution. After having rested a little and refreshed themselves with biscuit and tinned meat, the troops on the right bank returned from Jumawan to Qualla Kangsa, after having been out twelve hours without loss.

The Goorkhas bivouacked all night close to Enugar, and at daybreak on the 5th, proceeded inland to a village named Pérak, to which the Kota Lama Malays had retreated. The Malays had placed numerous obstructions in the way, and had laid an ambuscade. After the Goorkhas had advanced some distance, and were defiling along the jungle path, they were fired on from the opposite side of a small stream, but, beyond damaging a soldier's pouch and cross belt, the fire did no harm. The Goorkhas were immediately after the Malays, and in so great a hurry were they to escape, that they left several spears behind that they had stuck in the ground when firing. On reaching the village of Prék, shots were again exchanged, resulting in Colonel Hill being hit in the ankle by a spent bullet. An occasional shot was fired by the Malays as they retreated from the village which did no damage. The village was burned, and large quantities of rice, clothing and other stores destroyed. The Goorkhas then crossed to the right bank of the river Pérak, down which they marched to Qualla Kangsa.

Prék burned.

Troops for Blanja

On the 7th February, half a company of the Buffs, in medical charge of

Surgeon Townsend, proceeded down the river to Blanja, to complete the company there.

General Colborne visits Qualla Kangsa. The blue jackets rejoin the "Philomel."

General Colborne visited Qualla Kangsa on the 10th February, and on the morning of the 11th, inspected all the troops, and afterwards the General Field and Goorkha Hospitals. On the morning of the 12th, General Colborne and Brigadier-General Ross left for Singapore. The same morning the blue jackets belonging to the "Philomel" started to rejoin their ship.

Orders having been received that the Bengal Force was to return to India as soon as possible, arrangements were commenced to move hospital stores down towards the Laroot river to be ready for shipment.

On the 7th March, the Goorkha sick and hospital establishment left Qualla Kangsa for the sailing ship "Czarewitch," anchored at the mouth of the Laroot river.

3-5th Royal Artillery left behind.

It having been decided that the battery of artillery would remain behind for the present, Surgeon Gormley, attached to the Buffs, was detailed to be attached for duty to the battery, and, owing to the paucity of medical officers in the Straits Settlements, the Straits Settlements Government applied to General Ross for the services, temporarily, of another medical officer; accordingly Surgeon Townsend, attached to the Buffs, was directed to remain at Blanja for duty with a detachment of the 80th Regiment till further orders.

The Buffs leave Pérak.

On the 13th March the head quarters and one company of the Buffs marched towards the Laroot river.

On the 14th followed the European sick and hospital establishment.

On the 15th the company of the Buffs at Campong Boyah and Gapes Stockades.

On the 16th one company of the Buffs from Qualla Kangsa.

On the 17th the remainder of the Goorkhas.

On the 18th the doolie bearers and coolies.

The two companies of the Buffs at Malacca embarked on board the "Himalaya" on the 9th March.

The Buffs, at the mouth of the Laroot river, embarked in detachments on the 15th, 16th and 17th.

The company at Blanja left on the 15th March, and joined the "Himalaya" at Penang.

All the troops and followers having embarked, the Buffs and one company of Goorkhas on board the "Himalaya," the Goorkhas and followers on board the "Czarewitch" and "Arabia" proceeded towards Calcutta on the evening of the 19th March.

Topographical and descriptive remarks.

The province of Pérak is situated on the west coast of the Malay Peninsula, and extends from 3°·59 to 5°·10 north latitude, and 100°·10 and 102°·5 east longitude.

The Malayan chain of mountains bounds it on the east, and the sea on the west. Several rivers flow from the Malayan chain to the sea, and chief among these are the Pérak and Laroot rivers. The mouth of the Laroot river is obstructed by a bar which, at high water, only admits vessels drawing about 8 feet of water. Vessels of this draught can steam up the river to Tiluk Kertang, a distance of about nine miles. Above this the river is navigable for small boats and canoes to a distance of fifteen miles. The current is sluggish, and the banks flat and swampy, and covered with dense mangrove jungle to the water's edge. Crocodiles are numerous, and fish of various kinds abound.

Landing place, Laroot river.

The landing place is at Tiluk Kertang, where the river is about 60 yards wide, and lined with dense mangrove jungle. From Tiluk Kertang to Matang, the chief town in Laroot, the distance is one mile; the road is swampy and liable to be flooded by the tide, and has dense jungle on both sides.

Matung.

Matung is a pretty large village, inhabited by Chinese and Malays, and lies in an angle of the road. The houses are constructed of wood, bamboo, and thatch made out of the leaves of a kind of palmite and named *Atups*. There are some very fair shops kept by Chinese, at which European stores may be obtained. At Matung there is a police magistrate, a prison, a post office, a custom house, and the Mantri of Laroot has a fortified residence opposite the prison.

From Matung to Sampong, a distance of about 3 miles, there is a tolerably good cart road, about 15 feet wide, for the most part lined by dense jungle,

but with here and there a small clearing effected by Chinese. Clear streamlets flow along both sides of the road, and the ground in the vicinity is marshy.

Sampong. Sampong is a smaller village than Matung, and, like Matung, is inhabited by Chinese and Malays; beyond a few shops, there is nothing of any interest connected with it.

Thai Ping, the residence of the Assistant Commissioner, Captain Speedy, is about 4 miles distant, and in the vicinity are valuable tin mines worked by Chinese.

From Sampong to Bukit Gantang, a distance of nearly 6 miles, the road is tolerably good, and becomes undulating as Bukit Gantang is approached.

It may be stated generally that the country is flat and swampy to a distance of about 12 miles from the sea coast, then becomes undulating, then hilly. The road is still lined by dense jungle, with here and there paddy fields; streamlets of clear water frequently intersect and run along the sides of the road.

Bukit Gantang. Bukit Gantang is a picturesquely situated small village, chiefly inhabited by Chinese traders and Coolies. Here the Mantri of Laroot has his residence and the affairs of State are transacted. Densely wooded hills rise to a height of from 500 to 3,000 feet on the north, south and east sides of the village, which break the rain clouds and give the place fully its own share of rain. Cocoa palms, plantains and wild nutmeg are abundant, and the betel palm is extensively cultivated. A small lake to the west of the Mantri's residence, in part covered with pink lilies, and from which issues a small stream, serves to add beauty to the spot It has its drawbacks; leeches are very numerous, and the air is alive with mosquitoes after sunset.

Brapit Pass. From Bukit Gantang to Campong Boyah Stockade, a distance of nearly 9 miles, the road for a short distance is fairly good, and there are extensive paddy fields on either side. The Brapit Pass is then entered, and the grandeur of the woodland scenery strikes the eye at once. The road degenerates into a rugged foot-path intersected by numerous streams of cool and limpid water. The hills on either side are thickly wooded, and rise to a height of about 1,000 feet. There are numerous primeval forest trees with gigantic creepers twining about in every direction. A remarkable tree of very hard wood, named the Buttress tree, growing to a height of fully 200 feet, is conspicuous here and there. Various species of palmite are to be found, and wild plantains and nutmeg are numerous. All along the pass (nearly 2½ miles) the hill sides are covered with enormous granite boulders, which here and there almost block up the pass. The soil has a surface of mould with disintegrated granite and clay underneath. On a commanding site at the middle of the pass, there is a small stockade held by Sikh police. The east end of the pass is commanded by Gapes Stockade, which consists of three houses surrounded by a palisading. Beyond this are paddy fields, and a peculiar isolated hill rising abruptly from the paddy fields and composed almost entirely of limestone, named Gunong Pondoh. On its vertical sides are to be seen large excavations with depending stalactites, and the slopes are densely wooded. It has an elevation of nearly 1,000 feet, and viewed from different directions assumes various shapes, but the most characteristic is that observed from the east or the west, when it appears like a huge shark's tooth. Two miles beyond this is Compong Boyah Stockade; it is partly entrenched and has a ditch round it. In the immediate vicinity are cultivated fields and jungle. Further off, on the south and east sides, are wooded hills, rising to a height of from 500 to 4,000 feet. On the east side, immediately outside, there is a Malay village with a mosque, and beyond this a stream named the Kungser, which flows into the river Pérak at Qualla Kangsa. On the south side there is a small lake. The soil is of a rich alluvial nature, and paddy, Indian corn, and sugarcane grow freely. Cocoa and betel palms thrive well. In the jungle are birds of various sorts, monkeys, wild pigs, deer of sorts, wild dogs and leeches. There are very few mosquitoes.

Gapes Stockade.

Gunong Pondoh.

Campong Boyah.

From Campong Boyah to Qualla Kangsa the road was a mere elephant path through dense jungle, paddy fields and swamps; the ground is undulating, and has a steady rise towards Qualla Kangsa. Just before reaching, the Kangsa is crossed, numerous streams intersect the path, some of which have rough culverts over them. The distance is under 7 miles.

Qualla Kangsa. Qualla Kangsa is situated on the right bank of the river Pérak, immediately below the mouth of the Kangsa. The stockade has an elevation of 70 feet

above the river Pérak, commands the country round, and is the residence of Inchi Meda, a Malayan princess. On the arrival of the troops there was a Malay village between the stockade and the Kangsa, and to the east of this a police station. These were afterwards utilised for troops.

On the opposite bank of the Pérak, there is a large village named Saiyong, and two miles up the river a large village, since destroyed, named Kota Lama. Above this a small village named Enugar, since destroyed: a short distance inland from this Prék, since destroyed.

On the right bank of the river, immediately above the mouth of the Kangsa, there is a small village inhabited by traders above the Kota Lama "on the right bank," then Jumuwan. All these villages are situated in a plain of considerable breadth, bounded on either side by densely wooded hills and traversed by the river Pérak, which flows, generally speaking, from north to south. The river Pérak at Qualla Kangsa is 245 yards wide, and has a current varying from 2 to 5 miles per hour, according to the state of the river; although not very deep, from 1 to 7 feet, the current is almost noiseless, and at night the river is as still as a lake. The bottom is fine sand at the centre, and coarse sand and shingle at the edges. The channel is continually shifting, and what is deep water one month will be a shoal the next.

River Pérak.

Navigable for large boats.

It is navigable for large native boats and steam cutters. Various kinds of fish, not unpleasant to eat, but very bony and foul feeders, are numerous. These are frightened into traps and captured by the Malays. The river is stated to have its origin in a lake somewhere to the east of, and in much the same latitude as, Penang. About 20 miles above Qualla Kangsa a succession of rapids commences, rendering navigation impossible, except for canoes beyond. The river is liable to heavy floods; as an instance, on the 5th January, 1876, it rose to a height of fully 12 feet above ordinary level, the surface being covered with froth and debris of all sorts, numerous boats and rafts were carried away.

Quality of water.

The water is tolerably clear, and after settling a little, becomes quite clear and colourless, throwing down some fine sand. The temperature is pretty high, the water feeling almost tepid. It is very soft, but contains a larger amount of suspended organic impurity, having its source perhaps in fæcal pollution, the river being the main sewer of the country. On both banks of the river, at short intervals, latrines are constructed on bamboo rafts, and all the inhabitants, great and small, make use of them.

Kangsa water.

The Kangsa water is cooler and clearer than the Pérak water, but is equally polluted by the inhabitants living on the banks.

Products of Pérak.

On both sides of the Pérak river, cocoa palms abound, but do not appear to be indigenous, as they are only to be found in the vicinity of habitations. Betel palms, coffee, sugarcane, Indian corn, paddy and bamboos grow freely. The mango, mangosteen, tamarind, custard-apple, guava, pine-apple, jack, dorian, and other tropical fruits are abundant. Forest trees of various kinds, and suitable for building purposes, cover the hills. Some of these trees, especially the Buttress tree, reach an enormous height. The ground not actually under cultivation is covered with dense jungle. In Laroot, indian-rubber, gutta-percha, copal, catechu, and other drug-producing trees are common.

As a rule the trees which grow on the hills do not thrive on the plains, and *vice versâ*.

Animals.

Wild animals are pretty numerous. Tigers and leopards, of which the Malays have a superstitious dread, inhabit the hills. Wild dogs and cats of various kinds roam about at night, and others infest the river. Elephants of small size, tame and wild, are found, and the females breed in captivity, meeting the males in the jungle. The elephants are not fed, but are let loose in the jungle all night to pick up what they can find. Monkeys of various kinds keep up a perpetual chatter among the trees. Buffaloes, red and black, and goats are numerous, and so are dogs of the Pariah breed, and cats with stumps for tails. Oxen are imported into Laroot for draught purposes. There are no sheep. Vultures, hawks, kites and crows are plentiful, so are ducks and barn-door fowl. Wild geese, duck, teal, snipe, plover, jungle-fowl, and quail are abundant.

Minerals.

The hills are rich in minerals, especially tin, and mining to a limited extent is carried on by Chinese. Gold and silver are found, but the mineral resources of the country are still undeveloped. For example, the tin mines are simple

scratchings on the surface; the native tin being washed out, the ore has not yet been disturbed.

Insect life. Insect life revels in the damp warm atmosphere. Butterflies, beetles, ants, flies, mosquitoes, and sand-flies are great pests. The climate appears to be peculiarly favourable to reptile life; snakes, innocent and venomous, from the boa-constrictor to the small water-snake, and from the ophiophagus elaps to the small viper; lizards, from the huge iguana to the small wall lizard; centipedes, scorpions, tortoises, are everywhere met with. The jungle is full of small leeches which draw blood freely, and, as a rule, the bites cause troublesome sores.

Reptile life.

Climate. During the stay of the troops at Qualla Kangsa, although it was reported to be the driest season of the year, as compared with Lower Bengal even, the climate was decidedly moist and fogs very common. A northerly breeze would usually spring up in the early morning rather suddenly, lull towards 11 A.M., spring up again at noon, veering round to east and south in the afternoon, and die away towards evening. Rain, as a rule, came down in drenching showers, Rain. an almost daily occurrence among the surrounding hills. The sky was rarely quite free from clouds, the amount being greatest in the afternoon. As a rule Temperature. the mornings were cool, even chilly if a northern breeze happened to blow, and the dew fall was very heavy. Towards noon, when the breeze lulled, the heat became very oppressive, and the temperature continued high till late at night. The highest temperature in the shade during January, 1876, was 90°, and the highest in the sun 121°; the lowest temperature in the shade was 72°. The maximum range in the shade was 14°, the minimum 6°, and the average 11°·25. The average in the sun was 109°·24; average maximum in the shade, 86°·77; average minimum in the shade, 75°·22; and the average daily temperature in the shade during the month, 81°·99.

The highest temperature in the shade during February was 95°, the lowest 70°; the maximum range was 23°, the minimum, 6°, and the average range was 17°. The average maximum temperature in the shade was 91°, the average minimum 73°, and the average daily temperature, 81°·2.

The highest temperature in the shade during 13 days in March was 93°; the lowest temperature in the shade, 71°; the maximum range in the shade was 19°; the minimum, 7°; and the average daily range, 13°·92. The average maximum in the shade was 87°·30; the average minimum, 73°·38; and the average daily temperature during the 13 days, 79°·55.

Rain fell on 13 different days during December, on 16 different days during January, on 14 different days during February, and on 8 different days during 13 days in March.

Thunder storms were pretty frequent but not severe, and of short duration.

Wind. The wind was very variable during the 24 hours, although every day was pretty much the same. As a rule, it would go right round the compass between morning and night. It came usually in puffs, and, except on one occasion the evening of the 28th February, when there was a tremendous squall accompanied with heavy rain and thunder, was never very strong.

Means of communication. In Pérak the rivers are the high roads or principal means of communication. Of these the river Pérak is the chief. Between the rivers there are numerous foot-paths through the jungle, and with the following exception are the only means of communication between the rivers. Between Teluk Kertang on the Laroot river, and Qualla Kangsa on the Pérak river, a road has been constructed having an average width of 15 feet. It has a total length of 23 miles, and is suitable for carts between Teluk Kertang and the Brapit Pass. A similar road has been constructed by Captain Speedy between Sampong and the Kota tin mines near the Residency.

Laroot and Pérak inhabitants. Laroot is inhabited by Malays and Chinese, chiefly the latter. Pérak is for the most part inhabited by Malays. The Chinese found in Pérak work in the Kinta mines.

Malay inhabitants. The Malay is of small stature, muscular and active in his movements, fond of the water, boating, fishing, hunting and dollars; a goodly number of them smoke opium, a habit acquired no doubt from the Chinese. Cultivating the soil is an occupation they do not show any natural liking for. They are fond of music, dancing, and out-door sports, especially a kind of foot-ball. The ball is made of split rattan and is very light. A Malay kicks this into the air with the instep of the bare foot, another kicks it before it reaches the ground, and

the object is to keep the ball up as long as possible. Some of the Malays are very expert at this game.

Dress. The male dress consists of a black or checked handkerchief tied in a peculiar manner over the head, so that the ends stick out like horns; chiefs and heads of villages wear caps made of grass or embroidered cloth, a cotton or cloth jacket named a *baju*, a pair of trowsers either short or loose like those worn by the Chinese, or long and tight at the ankles; a piece of checked or plain coloured cotton, chiefly red, about 3 yards in length, with the ends sewn together, called a *sarong*. This is worn in a variety of ways like a petticoat, tight behind and gathered in folds in front, or as a wrap for the head and shoulders or loins, according to the dictates of fancy and the particular occupation the Malay may be engaged in.

The ordinary Malay does not require the services of a shoemaker, but some of the chiefs who have seen a little of civilized life at Singapore or Penang, affect white stockings and patent leather shoes, just like some of our Ayrian brethren in Lower Bengal.

Malay women. The Malay women, as a rule, have flat faces and pug noses, and although they cannot boast of much beauty, a pair of sharp bright eyes give them an intelligent expression. They are not very dark-skinned, and their hair, which is black, they brush off the forehead and arrange rather neatly with the aid of pads, &c. They have no head-dresses, and although professed Mahommedans, as a rule do not consider it necessary to conceal their faces.

Dress. The clothes of the poorer Malay women consist of two *sarongs;* one worn as a petticoat, the other as a wrap over the head and shoulders. Those who can afford it, wear in addition a tight-fitting long gown over the *sarong* called a *kobaya*. Some of the young women wear the jacket or *baju;* they manage to pass through life without shoes.

Pursuits. Household duties employ part of their time, and during leisure moments those industriously inclined manufacture grass boxes and rugs, and do a little in the way of embroidery; but in the latter accomplishment they are much inferior to the women of India. They are of a gay disposition, and fond of music and sight-seeing.

Malay children. The Malay children are lively and active, and not overburdened with clothes; when modesty calls for it, a pair of trowsers or a *sarong*, according to the sex, is sufficient. They take to the water freely, and are fond of assisting in the fishing operations.

Food. The Malays live chiefly on rice, fish, fruit and condiments, and an occasional buffalo feast regales their hearts. They are eternally chewing betel-nut, &c.

Qualities. In ordinary times their personal courage is not great, but when worked into a state of fanaticism they are regardless of life. When on the war-path they show themselves as little as possible, and always endeavour to attack when little or no hurt is likely to result to themselves. The present campaign has disabused them a good deal of their confidence in the defensive power of stockades, but they can make their way through the jungle like cats, and so close do they lie that they may be passed and repassed by numbers without being observed.

Weapons. Their weapons are small pieces of ordnance, rifles and muskets of sorts, spears, krises, swords, and pointed bamboos named ranjows, which are stuck in the ground at an angle across footpaths and inflict great damage on bare feet.

Formerly they used a round shield made of rattan, but latterly they have lost faith in its powers of defence.

Ammunition. For rifles they use Snider and other ammunition, and for the muskets large slugs and tin bullets moulded over pieces of glass or crockery. For the small ordnance they use round shot, and water-shells filled with tin.

The Malays are very bad shots, firing usually from the hip, but deadly with the spear when opportunity offers. They take great care of their spears and krises, and attach superstitious significance to certain marks on them. Moreover, in the manufacture of these weapons, some of them are very skilful.

Malays intermarry. The Malays intermarry greatly, and in consequence suffer considerably from scrofulous affections; they are very liable to malarious fevers, dysentery and diarrhœa. Many of them have marks of small-pox, and inoculation with small-pox is common. They are prone to skin diseases, chiefly eczema, itch,

Diseases.

psoriasis and foul ulcers, the latter often originating in leech bites. Their surgery is of the most primitive kind, and they are fond of irritants in the treatment of wounds. Superficial gunshot wounds they cauterize, and deep ones they leave to fate, and object to bullets being extracted. A few of them have a *little* faith in the value of medicines, but the great majority of them have recourse to charms. A curious custom exists among them in cases of dangerous illness, which are attributed to the influence of evil spirits. If they can remove the evil spirits they are all right; so with this object they construct a miniature *prahu* or war-boat of wood, complete in every way, with mast, rigging, black flag, paddles and rudder. The boat is filled with various articles —a bag of rice at the stern, and a lamp made out of a cockle-shell at the prow; the body of the boat is stuffed with cups made of leaves, containing liquors of various sorts; entrails of fowls, sweetmeats of kinds, tobacco, flowers and copper coins. The boat is supported by a slender square bamboo platform, surrounded with pendent grass, to the ends of which are tied all sorts of eatables, and at the corners the legs and wings of a chicken. About 18 inches below the boat are figures of turtles, crocodiles and lizards, made of rice, resting on a plantain leaf, the whole being supported by four straight branches about 7 feet high (the top leaves forming a canopy) stuck into a raft made of plantain trees. Slips of bamboo are stuck round the raft, with partially-burned red rags tied to them. The raft is set afloat, and it is supposed that the evil spirits, enticed away by the food in the boat, leave the patient and attach themselves to the boat. Should any Malay, by accident or otherwise, touch this raft after it has been set afloat, he or she becomes afflicted with the disease from which the person for whose benefit the raft was set adrift suffered.

Belief in charms.

The Chinese are numerous in Laroot, and are for the most part employed in the tin mines. A good many work at trades and keep stores.

Laroot Chinese.

They are clannish and quarrelsome, and the majority of them are addicted to opium-smoking. They work in gangs with head men over them, who are responsible for their good behaviour. The Chinaman lives well, the principal articles of his diet being rice, fish, pork, ducks, and tea. He is more industrious than the Malay, and when kept well in hand gets through a good deal of work.

The Chinese were very unmanageable as transport coolies, but imperfect organisation and defective supervision were probably the cause of this.

They are more healthy than the Malays, but suffer a good deal from malarious fevers.

They are not so liable to skin diseases.

When Brigadier-General Ross arrived at Qualla Kangsa, he fixed his residence in Inchi Midás Stockade, and Qualla Kangsa became the head quarters of the Laroot Field Force.

Topography of Qualla Kangsa.

A spur stretching towards the north-east from Inchi Midás Stockade was cleared of jungle, and huts for the European troops erected on it. The spur was about 60 feet at its highest part above the level of the river, and sloped down towards the river bank. The site of the huts was bounded on the north by the Kangsa and Pérak rivers, on the east by the Pérak river and a ravine, on the south by jungle, and on the west by Inchi Midás Stockade.

At the east side of the camp there was an old Malay stockade, part of which was utilised as a burying-ground for British troops.

Old Malay Stockade.

The surface soil at Qualla Kangsa was gravelly, with a substratum of clay.

The huts were constructed of a framework of wood with thatched roofs, and in some instances thatched sides and gables. The roofs were pretty watertight, and numerous apertures in the walls and at the eaves, together with openings to serve as doors, allowed of free ventilation; each man had an average cubic space of 260 feet. Bamboo platforms were constructed along each side of the huts and served as beds, raising the men about 2 feet off the ground. As temporary structures the huts answered fairly well, but they were hot during the day and damp and chilly at night, due no doubt to the proximity of a large river, and the frequent occurrence of fogs.

Huts.

Accommodation and arrangements for troops.

A small hut capable of accommodating twelve patients, was constructed of matting to serve as an hospital. I got the hospital servants to partition off a portion at the west end to serve as an office and dispensary, and erect a small

Hospital.

shed at the east end to serve as a lavatory and place for commodes. They also constructed twelve bamboo bedsteads, and a hut for the medical subordinates at the west end of the hospital.

The hospital was sufficient to accommodate all the sick till the beginning of January. An increase in the amount of sickness then occurring, necessitated part of one of the huts occupied by troops being brought into use. This was objectionable; but owing to the uncertainty of the movements of the force the General did not like to build fresh huts. A new hut, capable of accommodating 50 men, was constructed, however, and when this was completed and occupied a good hut was handed over for use as an hospital. A portion at the north end was partitioned off for an office, and a portion at the south end was divided off into lavatory, latrine and dispensary. Bamboo bedsteads were constructed; windows cut out of the walls, and fitted with shutters made of matting. The hospital having been made comfortable, was occupied on the 25th January.

Lighting. There was accommodation for 32 patients, allowing an area of 66 feet, and a cubic space of 705 feet per bed. The ventilation was free, but in other respects it was similar to the huts occupied by the troops,—hot during the day and damp and chilly during the night. The huts occupied by the troops, and the hospital hut, were lighted at night by means of oil lamps, in accordance with the Indian camp scale.

Latrines. Trenches were used in the first instance as latrines for both Europeans and Natives, dug to leeward of the camp. Latrines were afterwards constructed over the Pérak river; they were clean, free from smell, and answered the purpose well, without apparently polluting the water to a great extent, for the fish were in such numbers that the ordure was removed as soon as it reached the surface of the water.

Urinals. To serve as urinals, narrow deep trenches were dug at convenient sites, and dry earth sprinkled over the urine twice a day prevented any offensive smell. They answered the purpose remarkably well.

Portable commodes. For hospital use there were portable commodes with tin pans. The dry earth system was adopted; and although, owing to the number of bowel complaints the commodes were a good deal used, there was no offensive odour. The dry earth was stored under cover in old porter casks.

Camp refuse. The camp refuse was collected in heaps and burned. A gang of 20 Chinese coolies, under the Provost Marshal, kept the camp clean; and, although there were a large number of natives, the sanitary condition of the camp was good. A few floggings convinced the natives that they could not commit nuisances with impunity, and as all the jungle had been rooted up, there was no cover to conceal filth.

Cooking. Drains were dug round each of the huts to carry off the surface water, and as there was a good fall towards the river, the ground very soon dried up after rain.

Cooking was done under cover. Open sheds with thatched roofs were constructed, and protected from the sun and from rain as a rule. The cooking utensils were the ordinary tinned copper boilers and frying-pans in use in India, and permitted of boiling, stewing, and frying.

Tinning of pots difficult. I am of opinion that copper cooking-pots are a mistake, especially on service, when they have a good deal of wear and tear. The tinning process is a serious drawback, especially where there are detachments at a distance from the tinning men. During the Pérak operations it was with the greatest difficulty the pots were even indifferently tinned, as tinsmiths instead of tinning men were sent with the force, and it was by the merest accident that a man who knew something about tinning was discovered. Strong block tin boilers are lighter to carry, and would in every way be superior on service to copper boilers. As a hospital kitchen, a hut was erected by the followers. The utensils were copper boilers for meat, &c., and enamelled saucepans for cooking arrowroot, &c.

Here again block-tin would be most suitable, as there was the same difficulty about tinning the boilers, and the saucepans were cumbersome and heavy.

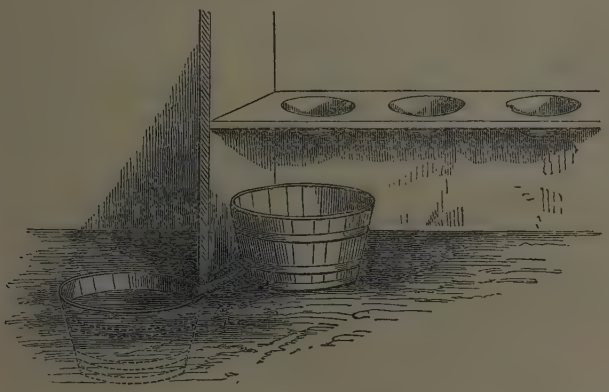
Fuel. Fuel for all purposes was brought in by fatigue parties of coolies from the jungle, and stacked near the kitchens. The wood burned well, and the supply was abundant.

The means of ablution were not very refined, but answered the purpose very well. Porter casks cut in two made very good tubs, and these were kept full of water, with which the men washed their faces and hands. Lavatory.

There were voluntary bathing parades every evening under the orderly officer, and compulsory bathing parades at 7 A.M. once a week. Washing was done by the men in the Pérak and Kangsa rivers as occasion required. The hospital clothing was washed by washermen, as in India. Bathing.

For ablution purposes the hospital was furnished with block-tin basins, and tubs made out of porter casks.

To remove waste water and to keep the lavatory dry, I had an empty tub inside the lavatory communicating by means of a bamboo tube with a tub sunk in the ground outside the lavatory, so :—



The outside tub was emptied by hand as occasion required, and the contents carried outside the camp.

The troops were rationed on the same scale as was adopted in Abyssinia : fresh meat, 1¼ lb. ; bread, 1¼ lb. ; or biscuit, 1 lb. ; sugar, 2½ oz. ; potatoes or yams, 1 lb. ; salt, ½ oz. ; tea, $\frac{5}{7}$ oz. ; or cocoa, 1 oz. ; or coffee, 1 oz. After the 24th of January, salted beef and pork were each issued once a-week to the extent of 12 oz. per ration ; accompanying this issue there was a weekly allowance of 6 oz. pickles, $\frac{1}{6}$ pint vinegar, ½ oz. mustard, and $\frac{1}{6}$ oz. pepper. When tinned meat was issued instead of fresh meat, the allowance was 1 lb. per man. With the exception of a few days in the beginning of December, the fresh meat consisted of buffalo flesh. Several oxen were imported from Penang, but disease broke out among them, due, in my opinion, to the trying treatment the animals received, and it was not considered judicious to import more. Rations.

The buffaloes were of two kinds, black and red ; the latter being much more numerous than the former—both were used for food. Buffalo flesh has a peculiar sweetish flavour, and is extremely tough, coarse, and indigestible. With elaborate manipulation, seasoning, and great care in the cooking, it could be made palatable, but the limited means of cooking at the disposal of the troops would not admit of this. A good many men, under the impression that it caused diarrhœa, would not eat it.

The tinned meats, chiefly Australian beef and mutton, were occasionally issued ; their quality was, on the whole, good, but the troops were soon tired of them, as they had but little flavour, and all tasted alike.

The salted beef and pork were of fair quality and were well liked by the men as a change.

Biscuit was issued for a short time of very fair quality, and now and again to detachments, if there was no bakery. After a bakery was established at Qualla Kangsa, bread was issued there, and at Campong Boyah and Gapes as well. At first it was good, but latterly it fell off a good deal, owing to the flour

being gritty and damaged from damp. Australian and Indian flour separately or mixed were used in its manufacture.

The tea issued was China tea, of indifferent quality, a considerable proportion consisting of small stalks. The tea issued to the troops in India is much superior.

The coffee was issued raw, and as proper means for roasting and grinding were not available, it was not much used; moreover, the men had an impression that it caused diarrhœa. Cocoa in cakes was occasionally issued; the quality was fairly good and the troops liked it.

The sugar was of unequal quality, as a rule dirty and not to be compared with the sugar issued to the troops in India.

The salt, pepper, pickles vinegar and mustard were good.

The potatoes were good when fresh, but deteriorated after being kept a few days. The yams were rather coarse but wholesome. Some onions and pumpkins could be obtained by private purchase.

In the way of fruits,—plantains, cocoanuts, mangoes and guavas were within reach of the soldiers, but money was very scarce.

Lime juice issued. On the recommendation of Surgeon-Major Collis, 2 oz. lime juice and 1 oz. sugar were issued to the European troops twice a week after the 22nd December.

Porter and rum. Porter and rum were issued on alternate days, the daily ration being one pint of porter or one dram of rum. They were both of wholesome quality, and I believe their issue was beneficial. As it was extremely difficult to procure other liquor, intemperance was reduced to a minimum.

Water. The water for all purposes was obtained in the first instance from the river Pérak. A well 25 feet deep was afterwards sunk, and afforded a limited supply of water.

River water. The river water was slightly turbid on being drawn, but, after settling a little, became perfectly colourless and transparent, a sediment of mud or fine sand being thrown down. There was also deposited a perfectly colourless and transparent gelatinous slime which rapidly choked the filters; in other respects it was free from odour and pleasant to the taste.

Well water. The well water was from the surface chiefly; it was hazy when drawn and continued so after settling for some time. The haziness was due to fine particles of clay, and even after filtration was not entirely removed. It had a clayey odour and slight earthy taste. Both the river and well water were very soft. The river water was at first used in its natural state and appeared to be wholesome. In the beginning of January a Macnamara filter came to the front, and was at once brought into use. A second arriving shortly afterwards, a sufficiency of water for drinking purposes was filtered and used by the troops.

River water boiled. Two filters only having been sanctioned, the troops in the out-stations used unfiltered water. Dysentery becoming rather prevalent, large boilers were applied for, and four having been brought to the front, all the drinking water was boiled before being filtered. After the well was opened, one filter was used for well water and the other for boiled river water. After boiling and filtration the water was decidedly good.

Clothing. The clothing of the troops consisted of a serge suit and two suits of cotton drill dyed a khaki colour, helmet, Glengary cap, leather gaiters, woollen shirt and socks, cholera belts, Kilmarnock night caps and ammunition boots.

Taking into consideration the very limited time allowed for preparation, the clothing was as suitable as could be obtained, but in a very damp climate like that of Pérak, cotton drill, unless frequently washed and artificially dried, becomes damp and clammy. In the morning with the temperature below 80° and a cold breeze blowing, it was not sufficiently warm, and when put on in the morning felt damp and uncomfortable. For garrison life white cotton drill is suitable enough, but for jungle work woollen clothing would be better adapted. A light textured tweed of a darkish slate colour, with the cloth doubled and quilted at seat and knees of trousers and elbows of coat, where it is most apt to give way, would be comfortable and diminish the susceptibility to chill.

The leather gaiters were too hot, and when wet became soft and pulpy. Tanned canvas gaiters being porous, would be more suitable, and they would support the leg better than leather gaiters.

The helmets, Glengaries and Kilmarnock night caps were comfortable and suitable.

The ammunition boots did not give much wear.

In the way of bedding, the soldier had his great coat, a blanket and a waterproof sheet. As a rule these were sufficient, but there were times when an extra blanket would have been very acceptable.

Waterproof cloaks with hoods were provided for the sentries during rain.

Serge suits were worn on night duties after the 1st of February when considered advisable.

Duties. During the first half of December the troops were marching to the front through Laroot. After arrival at the various positions,—Qualla Kangsa, Campang Boyah and Gapes,—they were employed in clearing jungle, levelling ant hills and road making. Military duties were light.

I recommended that the working hours should be two hours in the morning and two hours in the evening; but the Commanding Royal Engineer stating that it was necessary that a clearing should be made as speedily as possible, the officers and men were employed from 6 A.M. to 5 P.M. every day, with an hour allowed for breakfast and an hour for dinner. As the exposure began to tell on the officers and men, Surgeon-Major Collis recommended, on the 28th December, that the working hours should be from 6 to 8.30 A.M., 9 to 11 A.M., and 3 to 5 P.M. This recommendation was acted on, but did not appear to be followed by the benefit anticipated. Towards the close of January, when the working hours were from 6 to 8 A.M. and 4 to 6 P.M., the improvement in the health was marked, and after the middle of February, when fatigue duties were only performed in the morning, the admissions to hospital were very few, and bowel complaints almost entirely disappeared.

In addition to the fatigue duties, the night duties became harassing after the Kota Lama affair on the 4th January, and continued so till the arrival of the Goorkhas on the 26th January.

The fatigue duties were occasionally interrupted by affairs with the Malays during January and beginning of February, and these had an enlivening influence on the men, and gave them something to talk about.

Certain work had to be performed at Qualla Kangsa and the other stockades in a short space of time, and, in consequence, it was considered necessary that the men should work during the heat of the day. This of course could not be accomplished with impunity to health, and although at first the exposure did not appear to be prejudicial to health, it was secretly influencing the system. The lesson taught was that in a similar climate, fatigue duties during the heat of the day should be avoided when practicable.

As the troops were daily under observation, routine health inspections were not made.

Sick transport. The sick transport consisted of doolies, dandies, elephants, carts with springs and carts without springs, and was under the supervision of the Assistant Quartermaster-General. When not required for doolies the dooly-bearers were employed as ordinary coolies; probably this could not be avoided, but the effect of it was that, when dooly-bearers were required for the sick, they were sent in a gang without being told off to doolies or sorted in any way. Had the dooly-bearers been under the supervision of the medical officers, they would have been paraded and told off to doolies in sets according to height, and so carry the doolies with comfort to the inmates. Doolies were only employed in carrying sick between Qualla Kangsa and the Laroot River. As a rule they stopped short at Bukit Gantang, carts being employed for the remainder of the journey.

Morley-Collis dooley. The dooly used was the Morley-Collis dooley, with six bearers. The material and workmanship of the doolies supplied were very inferior, and, in consequence, during every trip they were greatly damaged, and as a rule brought back in an unserviceable condition. Fortunately the Madras Sappers were at hand and able to repair them, otherwise, after the first trip they would have been useless. As to the merits of the dooly, when in motion on a smooth road, it is more comfortable than the old pattern army dooly. The raised portion of canvas to serve as a pillow is a decided improvement. The dooly can be packed up so as to be tolerably portable. It is not equal to the old army dooly when at rest, as the roof collapses to a certain extent, and if great care is

not taken, the end pieces of the dooly will fall against the inmate's head or feet. Care is required in adjusting the frame work of the dooly, so that the corner cords may not be too long nor too short. The second rings in the end pieces of the dooly intended for lowering the pole, so that the dooly may be raised higher, are practically useless, as it takes a long time to remove the pole and place it in the second rings, and when this is accomplished, the pole and the inmate's nose come into very undesirable proximity.

On a rough road, the play allowed by the end chains causes the bearers to stagger about, and they have great difficulty in keeping the dooly steady.

There is too much iron work about the dooly, and the number of screws, clasps, rivets, hooks, staples, pins, chains, &c., makes repair difficult after damage.

I have come to the above conclusions after having repeatedly seen the doolies return from moderate journeys, broken and unserviceable, and after having walked a distance of 14 miles over a rough road alongside six of them.

Dandies. The dandies were always employed for jungle work, as the doolies were not at all suited for the work. They answered very well, although they were rather old and required looking after. They were rather short, as they were intended for hill work and for natives. Four bearers carried one easily.

A similarly constructed dandie, 6 feet long and 2 feet wide, with a blanket handy to throw over the pole to serve as a protection from the sun, would be the most suitable form for rough roads and jungle paths.

Elephants. Elephants were not a comfortable mode of conveyance, chiefly because there was no proper place to sit on. An elephant could only carry two men with their rifles and accoutrements.

Carts. The carts with and without spring, on account of inequalities in the road, jolted greatly and were only suited to convalescents. They were used between Bukit Gantang and the landing place on the Laroot river.

Hospital equipment. The medicines, instruments, medical stores, and comforts were amply sufficient, and this although a third of the medicines and stores were not available until the return of the troops. It was a mistake to divide them into three lots, as one of the lots lay unused in the hold of the "Czarewitch" underneath Commissariat stores, and, when a few medicines were required in the treatment of bowel complaints, Surgeon-Major Collis applied to Penang in vain for a suppply.

The medicines and appliances were packed in coarse boxes, with very inferior padlocks attached, and were not strong enough for the rough handling they got. In some cases there was some difficulty experienced in preventing the boxes from falling to pieces.

In any similar expedition I would recommend that all the reserve medicines and stores should be kept together and packed in substantial well made boxes, furnished with good strong padlocks, that field panniers and field companions should be available for detachments. The field pannier might contain a few more medicines, especially morphia and sulphate of zinc. It should be the duty of a medical subordinate to look after the medical supplies under instructions from the Principal Medical Officer, and attend to requisitions for medicines and appliances from medical officers in charge of detachments.

Medical transactions. The Buffs By keeping all the medical supplies together, fewer boxes and less carriage would be required, a great matter when transport is obtained with difficulty.

As previously stated, a careful inspection of the European portion of the force was made before it left Calcutta.

On board ship and during the advance through Laroot to the Pérak river, the troops, although they had some hot and trying marches, enjoyed first-rate health. During the march, which occupied ten days, a three-grain issue of quinine was made every second day, but was stopped after Qualla Kangsa was reached, as a febrile tendency did not manifest itself among the men.

Quinine issue. Surgeon-Major Collis commenced a daily issue of three grains of quinine on the 19th January, and after the 29th of the same month, this was continued on alternate days until the troops left the Malay Peninsula.

Towards the end of December, diarrhœa of a mild type, and usually lasting for 24 hours, became pretty prevalent among both officers and men, and now and again a case of dysentery and simple continued fever would come under treatment. Somewhat later on, in the beginning of January, dysentery and

diarrhœa of a severe type became prevalent, and strong-looking men were chiefly affected. Towards the end of January an improvement occurred, bowel complaints becoming less numerous and, at the same time, less severe. The chief cause in bringing about this change was no doubt reducing the number of working hours, so that the men were not exposed to the sun. Boiling the drinking water before filtration and the commencement of a quinine issue were no doubt of great benefit. It was a curious circumstance that subsequent to the commencement of a regular quinine issue, as bowel complaints decreased, malarious fever increased.

Although the mortality from bowel complaints among the native troops was comparatively speaking small, they suffered from them in even a greater degree than the Europeans. This was especially the case with the Madras Sappers and Miners, and the fact of no mortality occurring was probably due to the climate being pretty similar to the climate they had always been accustomed to.

The troops located in Pérak, at Qualla Kangsa, Campong Boyah, Gapes, Blanja and Kinta, all within a radius of 20 miles, as the climate, food and pursuits were the same, suffered about the same in degree and from similar complaints.

On the other hand two companies of the Buffs quartered at Malacca showed a great immunity from bowel complaints, and there was no mortality; further, the amount of sickness was trifling. The reason for such a difference is patent—light duty, comfortable quarters, no exposure to the sun, good food, and the midday heat tempered by a mild sea breeze.

After the middle of February there were very few fresh admissions, but such was the relaxing nature of the climate, that the cases under treatment made little progress towards recovery.

When bowel complaints were most prevalent in January, several patients were sent to Penang for change of air, but the result was not very beneficial, as the majority of them had afterwards to be invalided to England immediately on arrival in Calcutta, and one or two died.

Admissions for other diseases, besides fevers and bowel complaints, were not numerous, and it is worthy of remark that from the time the Buffs left Calcutta until they returned, there was not a single admission for venereal disease.

The officers living on the same food and under similar circumstances as the men suffered in an equal, if not a greater, degree, and from the same diseases.

Statistics.

The average strength of the service companies of the Buffs was 599. Of this number 401 were distributed in Pérak, at Qualla Kangsa, Campong Boyah, Gapes, Blanja and Kinta, and 198 garrisoned Malacca.

The total number of admissions into hospital, from the 20th November, 1875, to the 27th March, 1876, was 137, being in the ratio of 218·71 per thousand for the period.

There were altogether 13 deaths, being in the ratio of 21·70 per thousand for the period.

Immediately after the return of the regiment to Calcutta, 17 men were invalided to England, being in the ratio of 28·39 per thousand.

The average daily sick was 14·82, and the average number of days per man in hospital was 3·16.

The great bulk of admissions was caused by fevers and bowel complaints, and except that the mortality was considerable, the total amount of sickness was not great.

Simple continued fever.

Simple continued fever gave 25 admissions, pretty equally distributed over the whole period, being in the ratio of 41·73 per thousand for the period.

There was one death, being in the ratio of 1·66 per thousand.

There was a good deal of similarity in the symptoms of all the cases, and they corresponded pretty closely with those observed in mild ardent fever, such as occurs among young soldiers shortly after arrival in India. The symptoms were violent headache, flushed face and suffused conjunctivæ, coated tongue, and constipated bowels, great thirst and no appetite, full incompressible pulse. After about four days the symptoms would disappear somewhat suddenly, leaving the patient weak but convalescent. Many of the patients complained of pain and stiffness at the back of the head and neck after the acute symptoms disappeared.

In the fatal case of fever, the patient had been a good deal exposed to the sun as orderly cook. The fever was characterised by violent head symptoms, indicating considerable brain irritation.

Previous to death there was considerable twitching of the muscles of the face and extremities, the patient being at the time comatose.

The cause of these fevers was probably exposure to the sun followed by a chill.

Malarious fevers did not show themselves till February, and, curiously enough, after the troops had been taking quinine regularly for some time. The forms were quotidian and tertian, and yielded readily to large doses of quinine and stimulants.

There were altogether 10 admissions, being in the ratio of 16·69 per thousand. No deaths.

It is probable that the quinine issue, although it did not act as a prophylactic against malarious fevers, was useful in improving the general health, and thus diminishing the liability to bowel complaints.

The Goorkhas got no quinine as a prophylactic, and suffered in proportion, very slightly more than the Buffs from malarious fevers.

The two cases of *acute rheumatism* admitted belonged to the detachment at Malacca.

Malarious fevers.

Of the four cases of *muscular rheumatism*, three occurred at Malacca and one at Qualla Kangsa. They were ordinary cases of lumbago.

One case of *heat apoplexy* occurred on board the hired steamer "Abyssinia," and was attributed to the man falling asleep with his head near a heated steam pipe. He made a good recovery.

One case of *spinal meningitis* was admitted to the field hospital at Banda Barru, and proved fatal the day after admission, he had been sent from Blanja suffering from dysentery.

The case of *brow ague* occurred at Malacca.

The case of *inflammation of inguinal glands* occurred at Malacca.

One case of *laryngeal catarrh* and one case of *bronchitis* occurred at Malacca.

The case of *pneumonia* occurred at Qualla Kangsa. The disease was limited to the lower two-thirds of the right lung, and for some time progressed satisfactorily, but, owing to the relaxing climate, the disease became chronic and destructive lung disease set in. The patient was invalided to England after arrival in Calcutta, and is reported to have since died.

Two cases of *dyspepsia* were admitted at Qualla Kangsa, and in all probability were due to indifferent food.

Dysentery.

Dysentery was the scourge of the force in Pérak. Among the Buffs there were 42 admissions, being at the rate of 70·11 per thousand for the period, and five deaths, being in the ratio of 8·34 per thousand for the period.

Symptoms.

In most cases the disease commenced with symptoms of ordinary diarrhœa, followed in two or three days by malarious fever, tenesmus, tormina, frequent grumous, slimy motions, loss of appetite and intense thirst. The tongue, at first coated and furred, became, in the chronic stage, preternaturally clear and red. In a day or two the skin would become moist without the dysenteric symptoms abating, and prostration rapidly sets in. There was no scorbutic tendency observed in any of the cases. It is probable that the colon rapidly became ulcerated, as profuse hemorrhage was a frequent occurrence, and in fatal cases was the immediate cause of death. During convalescence, relapses were frequent, indicating an altered condition of the bowel.

In one fatal case, great twitching of the muscles of the face and extremities preceded death, due, most likely, to eccentric irritation of the spinal cord.

Treatment.

As to treatment: Ipecacuanha in large doses, even when given in the earliest stage of the disease, without relieving the dysenteric symptoms, produced such prostration that it was unsafe to continue its use. In smaller doses, combined with opium, in the form of Dover's powder, it was of good service. In some of the cases, medicine did not appear to have the slightest remedial effect. The medicines relied on chiefly were Dover's powder and quinine, chlorodyne, tr. opii and quinine, morphia and quinine.

Stimulants had to be given at an early stage of the disease. Opiate enemata gave great relief when the gut was able to retain them.

The thirst was difficult to subdue, but drinks made of lime-juice and aromatic sulphuric acid and barley water appeared to be useful.

When the disease became chronic, the tongue became clean and red, sometimes fissured, and the appetite was not satisfactory; pulse small and frequent, skin damp and clammy. When hemorrhage from the bowels occurred under such circumstances, the patient's chance of recovery was small, still, even after repeated hemorrhage, there were some wonderful recoveries.

Causes.

It is probable that various agents contributed to the occurrence of dysentery. First, "climatic peculiarities"; a very moist atmosphere; temperature high, and heat rather oppressive during the day. Occasional puffs of a cool north breeze, a close evening followed towards early morning by a sudden fall in the temperature and the advent of a cold northerly breeze. Second, the proximity of a large river and the occurrence of morning fogs. Third, exposure to the sun with the body perspiring profusely under exertion, exciting a thirst that frequent and copious draughts of water only would allay. Fourth, the slime in the water of itself caused a tendency to diarrhœa. Lastly, indigestible food. These various agents acted on the system in such a manner that a chill was all that was required to excite morbid action; and as large quantities of cold water were swallowed daily, the bowels suffered.

When the working time was materially reduced, bowel complaints almost disappeared, and in producing this satisfactory change I have no doubt that boiling the water for drinking and the quinine issue assisted.

On the 7th February, 1876, half a company of the Buffs went to Blanja from Qualla Kangsa; they were free from sickness on arrival at Blanja, all the troops there were employed the greater part of the day in cutting jungle and erecting a palisade. Dysentery and diarrhœa became common. The working hours were then limited to two hours in the morning and two hours in the evening, with the result of removing the tendency to bowel complaints.

Diarrhœa.

Diarrhœa gave 19 admissions into hospital, being in the ratio of 31·71 per thousand for the period, and three deaths, being in the ratio of 5 per thousand for the period. As a rule the diarrhœa was amenable to treatment, but in the severer cases, medicine did not have much effect. The symptoms were little or no fever; no tenesmus, furred tongue, intense thirst, no appetite, or the appetite not at all impaired. Motions very frequent and of a brown watery nature. In the serious cases the pulse would become very weak and the skin damp and clammy, and the profuse purging caused death by exhaustion. In one of the cases hemorrhage was the immediate cause of death.

The same agents were at work in causing the diarrhœa as in causing the dysentery.

One case of *right inguinal hernia* occurred. The subject of the injury was on the left bank of the river, at the attack on Kota Lama on the 20th January, and was trying to jump across a deep ditch in front of a stockade, when, missing his footing, he fell into the ditch, and I presume the weight of arms, ammunition and accoutrements assisted in causing the rupture.

One case of *colic* occurred at Qualla Kangsa. The subject was a strong muscular man who distinguished himself at the atheletic sports on Christmas Day, and is supposed to have injured himself.

The bowels were not obstructed, but he had frequent bilious vomiting and, before death, became quite jaundiced. A circumscribed hardness, the size of a large orange, could be felt round the umbilicus; it was neither painful nor tender on manipulation. The constant vomiting and colicky seizures soon exhausted him and he died comatose. There were no febrile symptoms. The actual cause of death could not be ascertained, as there was no opportunity for holding *post mortem* examinations.

The two cases of *hepatitis* occurred at Malacca. One case invalided to England was admitted as simple continued fever.

The case of *abscess of the liver associated with dysentery*, occurred at Banda Banu; the patient was sent to Singapore where he died. I was unable to obtain any particulars about the case.

The two cases of *orchitis* occurred at Malacca, and the case of boil at Qualla Kangsa; there was nothing special about them.

The cases of *ulcer* occurred at Malacca.

Gun-shot wounds.

Fortunately for the Buffs the Malays were very bad shots, for, although on several occasions exposed to their fire, and that within short ranges, only one man was hit. The unfortunate man was one of a working party cutting wood

at the south side of the camp at Qualla Kangsa on the morning of the 14th January, and was in the act of picking up a piece of wood to carry back to the camp when he was shot. The wound was caused by a large slug of semi-lunar shape, which penetrated at the middle of the left thigh in front, and came out immediately below the fold of left nates. Apparently no injury was done to bone or nerves and the hemorrhage was slight. The wound progressed satisfactorily, and there was every prospect of a good recovery. About a week after admission he showed symptoms of irritative fever, and in consequence, was sent to Penang for change of air. He died just before reaching Penang. The anterior wound had almost healed and the posterior wound was progressing favourably.

The case of *contusion* occurred at Qualla Kangsa.

The case of *fracture* occurred at Blanja and was caused in a curious manner. The subject was climbing a cocoa palm and had reached a height of about 7 feet when he was attacked so furiously by red ants that he was forced to let go hold of the tree, and, falling to the ground, sustained simple fracture of the left tibia and fibula. The fracture did well, but the patient afterwards becoming debilitated and showing a disposition to attacks of ague, was invalided to England immediately after arrival in Calcutta.

The admissions for *wounds* were caused by spears that had been captured. One accidently dropped on the instep of a soldier's foot, just escaping the anterior tibial artery. These wounds did well.

The case of *poisoned finger* occurred at Kinta, and as the medical certificates only stated that it was accidental, I am unable to state the nature of the poisoning. The finger got all right.

The four cases returned as "*no appreciable disease*" had been under treatment at Penang for dysentery, but were discharged from the station hospital and sent to the troop-ship "Himalaya." As the "Himalaya" had to go back to the mouth of the Laroot river and would return to Penang in a few days, the captain, under the impression that the men were at the time suffering from dysentery, would not allow them to embark. They had to return to Penang station hospital, and hence the admissions "no appreciable disease."

Officers. The average strength of the officers was 19, and out of this number seven were admitted to the sick list, being in the ratio of 368·42 per thousand for the period.

There were two deaths, being in the ratio of 105·26 per thousand for the period.

The case of *sunstroke* (heat-apoplexy) was that of Surgeon-Major Collis. He had just landed on the 9th December, and reached a village named Matang, one mile from the landing-place, when he was suddenly seized with faintness and became insensible. On recovering a little, he was sent by Surgeon Churchill, who attended him, to the steamer "Arabia," at the mouth of the Laroot river, and remaining there a few days, landed again and proceeded in a dooly to the front. Although far from well, he resumed duty as senior medical officer, and for some time his health improved; but a weight and weakness continuing in his left arm and leg, he went to Penang on medical certificate on the 31st January, and thence to Calcutta. He has since been sent to Mussoorie on medical certificate.

Major Morley had an attack of *iritis*, preceded by fever and slight rheumatic pains at Blanja, the result of a chill. The disease was limited to the right eye, and did not disappear until after arrival in India.

Lieutenants Ommanney and Armstrong, and Sub-Lieutenant Chippindall, were the subjects of *dysentery*. Lieutenant Ommanney became ill at Kinta, Lieutenant Armstrong at Qualla Kangsa, and Sub-Lieutenant Chippindall at Gapes. The three cases were very severe and relapses frequent. After return to India, on the recommendation of medical boards, Lieutenant Ommanney and Sub-Lieutenant Chippindall were invalided to England. Lieutenant Armstrong did not get beyond Penang; repeated attacks of hemorrhage from the bowels occurring, caused fatal exhaustion.

The fatal case of (*duodenitis*) *enteritis* was that of Lieutenant and Adjutant Colvill. On the evening of the 21st February, he exposed himself naked in a canoe for nearly an hour to a cool north breeze, and experienced a severe chill. The same night he had severe colicky pains and painful spasms of the stomach,

An emetic and warm water injection gave temporary relief. The stomach became very irritable, and there was pain and tenderness in the epigastrium.

The bowels were relieved by soap and water enemata. The vomiting became persistent, each act of vomiting being preceded by painful spasms of the stomach.

There was very little fever, but marked *hyperæsthesia*, and chloroform had to be frequently administered to give relief. As everything taken into the stomach was rejected, nutrient enemata were given, but the morbid action continuing, exhaustion set in and proved fatal on the night of the 29th February. Opiates in various forms were largely given, and local applications, sedative and soothing, but with only temporary benefit. Chloroform gave him most relief.

He had suffered from similar symptoms previously in India.

The case of *spear wound* was that of Surgeon E. Townsend.

On the 4th January he accompanied the Buffs on the left bank of the river to Kota Lama, but getting separated from them was attacked by three Malays. The leader he shot dead with his revolver, but tripping, he fell, and the dead body of the Malay fell on the top of him. This saved him, as the two remaining Malays had barely time to wound him in the right arm and left leg before two blue jackets rushed up and saved him by shooting the Malays. The wound in the arm laid bare and injured the biceps muscle, the wound in the leg was only cutaneous. None of the spear wounds healed by the first intention.

General remarks.

Almost immediately after the arrival of the regiment at Cawnpore, several officers suffered from fever, and Captain Kelly had to be invalided to England in consequence of an attack of catarrh followed by dysentery. On the arrival of the regiment at Calcutta, 67 men were sent to Darjeeling for change of air, in addition to 8 married men, who with their families were sent to other hill stations.

A good many men suffered from the sun during the march to Howrah railway station, and the effects in several cases have not yet passed away. The regiment had scarcely reached Cawnpore when two men died of cholera, and a third has since died. One of the men left in Calcutta for Darjeeling died of cholera also.

A few days after reaching Cawnpore, the hospital became filled with cases of catarrh and fever, convalescence from which was very slow, due to the relaxing effect of the Pérak climate, and to the circumstance that the regiment did not have the benefit of a cold season, the temperature in Pérak in the cold season being as high as it is in Calcutta during the hot weather.

Now that the regiment has settled down, and from a judicious arrangement of duty on the part of the commanding officer, the health of the men shows marked improvement, but I anticipate that until the Buffs get a thorough change of climate, a high standard of health will not be attained.

I shall now append a few Tables to show the extent of sickness and mortality among the officers and men of the Buffs from the 20th November, 1875, to the 27th March, 1876, being the period during which the service companies of the regiment were absent from India.

TABLE I.—Admissions into Hospital and Mortality among the Buffs in the Malay Peninsula, from 20th November, 1875, to 27th March, 1876.

Strength.	Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
599	25	1	61	8	50	3	1	1	137	13

TABLE II.—Ratio of Admissions into Hospital and Mortality among the Buffs to strength per thousand, from 20th November, 1875, to 27th March, 1876.

Average Strength.	Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
599	41·73	1·66	101·83	13·35	83·47	5·0	1·66	1·66	228·69	21·67

TABLE III.—Admissions to the Sick List and Mortality among the Officers of the Buffs, from 20th November, 1875, to 27th March, 1876.

Average Strength.	Sunstroke and Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
19	1	..	3	1	2	1	1	..	7	2

TABLE IV.—Ratio of Admissions to the Sick List and Mortality to strength per thousand among the Officers of the Buffs, from 20th November, 1875, to 27th March, 1876.

Average Strength.	Sunstroke and Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
19	52·63	..	157·89	52·63	105·29	52·63	52·63	..	368·41	105·26

TABLE V.—Showing the number of Officers and Men of the Buffs invalided to England after arrival in India, and the Diseases.

Strength.		Fevers.		Dysentery & Diarrhœa.		Other Diseases.		Wounds.		Total.	
Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.
19	599	...	2	2	12	...	3	...	...	2	17

TABLE VI.—Ratio of Invaliding to England among Officers and Men of the Buffs to strength per thousand.

Average Strength.		Fevers.		Dysentery & Diarrhœa.		Other Diseases.		Wounds.		Total.	
Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.
19	599	...	3·33	105·26	20·03	...	5·00	...	...	105·26	28·38

In order to find out whether previous mode of life (especially with reference to abstinence from alcohol, and the use and abuse of that stimulant) had any influence on the admissions into hospital and mortality among the portion of the regiment employed in Pérak, I took some trouble to ensure the following Tables being as accurate as possible, from 4th December, 1875, to 10th March, 1876.

The detachment at Malacca is not included.

TABLE I.—Strength of Total Abstainers, Temperate and Intemperate Men of the Buffs in Pérak.

Total Abstainers previous to leaving Calcutta.	Withdrew Pledges previous to leaving Calcutta.	Became Total Abstainers after leaving Calcutta.	Men of known Intemperate Habits.	Men who continued to be Total Abstainers.	Temperate Men.
44	23	2	61	21	294

TABLE II.—Admissions to Hospital and Mortality among the various classes whose strength is given in Table I.

Classes.	Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Total abstainers	3	..	6	2	1	..	..	..	10	2
Withdrew pledges	2	..	5	..	2	1	..	..	9	1
Intemperate habits	10	..	5	1	2	..	..	..	17	1
Since become abstainers ..	..	..	..	..	..	..	..	..	..	..
Temperate	9	1	36	5	11	2	1	1	57	9
Total ..	24	1	52	8	16	3	1	1	93	13

TABLE III.—Ratio of Admissions and Mortality among the various classes to strength per thousand.

Classes.	Fevers.		Dysentery and Diarrhœa		Other Diseases		Wounds.		Total.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Total abstainers	142·85	...	285·71	95·23	47·61	...	...	...	476·17	95·23
Since become abstainers ...	...	...	...	...	...	...	...	...	...	...
Withdrew pledges	86·95	...	217·39	...	86·95	43·47	...	...	381·29	43·47
Intemperate habits	163·93	...	81·96	16·39	32·78	...	...	...	278·67	16·39
Temperate	30·61	3·40	122·44	17·00	37·07	6·80	3·40	3·40	193·52	30·60

According to the above tables, the total abstainers gave the greatest amount of sickness and mortality. Next come the men who withdrew their pledges. The men of intemperate habits give the lowest mortality, and come between the temperate men and the men who withdrew pledges as regards admissions into hospital. The men who became abstainers after leaving Calcutta give neither admissions nor deaths, but the number is too few to count for much.

The lesson to be learned from the above tables is, that on the whole, the temperate man has the best of it.

Statistics of Laroot Field Force.

Having completed the medical transactions of the Buffs, I shall now give a concise summary of the medical statistics of the "Laroot Field Force" during the operations in Pérak, from the 4th December, 1875, to the 10th March, 1876. As no information was obtained about the left half Battery, 3rd Battery, 5th Brigade, Royal Artillery, it is not included.

3-5th Royal Artillery.

The average strength of the head quarters and right half Battery, 3rd Battery, 5th Brigade, Royal Artillery, was 33. Out of this number there were 13 admissions into hospital, being in the ratio of 393·93 per thousand. The admissions were caused chiefly by dysentery and diarrhœa, much of the same type as existed among the Buffs.

There was no mortality.

Headquarters, the Buffs.

The head quarters and four companies of the Buffs stationed in Pérak, numbering 401, gave 93 admissions into hospital, being in the ratio of 231·90 per thousand, and 13 deaths, being in the ratio of 34·41 per thousand. The admissions were caused chiefly by fever, dysentery, and diarrhœa, the peculiarities of which have already been described.

Malacca detachment, the Buffs.

Two companies of the Buffs, quartered at Malacca, having an average strength of 198, gave 27 admissions to hospitals, being in the ratio of 136·36 per thousand.

Fevers gave the greatest number of admissions, but, strictly speaking, there were no prevailing diseases.

There was no mortality.

The detachment at Malacca was as healthy as it would have been in any other part of the British possessions.

Naval Brigade.

The Naval Brigade, with an average strength of 44, gave nine admissions into hospital between the 4th December, 1875, and the 11th February, 1876, being in the ratio of 204·31 per thousand for the period. The blue jackets suffered chiefly from dysentery and diarrhœa, and three of them were invalided and sent to their ship.

There were two deaths; one from spear wounds in the abdomen, the other killed in action at Kota Lama, the cause of death being a spear wound through the chest. The ratio of deaths per thousand was 45·45.

Madras Sappers.

The Madras Sappers and Miners having a strength of 119 gave 94 admissions

into hospital, being in the ratio of 789·91 per thousand. The admissions were, chiefly caused by malarious fevers and dysentery.

They had no deaths.

1st Goorkha Light Infantry.

The 1st Goorkha Light Infantry, out of an average strength of 430, gave 192 admissions into hospital, being in the ratio of 417·39 per thousand. The admissions were chiefly caused by fevers and dysentery.

At Sungie Ujong the health was very good, and sickness only increased after the arrival of the regiment at Qualla Kangsa, on the 26th of January, when the men were a good deal more exposed on fatigue and night duties.

There were five deaths; two from dysentery, two from gun-shot wounds and one from spear wound, being in the ratio of 10·88 per thousand.

The following tables will show the comparative amount of sickness and mortality:—

TABLE I.—Admissions into Hospital and Mortality among the Corps forming the Laroot Field Force, from 4th December, 1875, to 10th March, 1876.

Corps.	Strength	Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Killed.	Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	In action.	Admitted.	Died.
3-5th Royal Artillery	33	2	...	7	...	4	...	...	...	...	13	...
Head Quarters the Buffs ...	401	24	1	52	8*	16	3	1	1	...	93	13
Detachment Malacca ...	193	7	...	1	...	19	...	...	...	...	27	...
Naval Brigade†...	44	...	...	7	...	1	...	1	1	1	9	2
Madras Sappers...	119	23	...	42	...	28	...	1	...	...	94	...
1st Goorkha Light Infantry ...	460	61	...	58	2	68	...	5	3	...	192	5
Total ...	1,255	117	1	167	10	136	3	8	5	1	428	20

* Includes one death on board ship after leaving Pérak.
† From 4th December, 1875, to 11th February, 1876.

TABLE II.—Ratio of Admissions to Hospital and Mortality per thousand among the Corps forming the Laroot Field Force, from 4th December, 1875, to 10 March, 1876.

Corps.	Strength	Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Killed in action.	Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.		Admitted.	Deaths.
3-5th Royal Artillery ...	33	60·60	...	213·33	...	121·21	...	...	...	...	395·14	...
Head Quarters the Buffs	401	59·85	2·49	129·67	19·95*	39·90	7·48	2·49	2·49	...	231·91	32·41
Detachment* Malacca	198	35·35	...	5·05	...	95·95	...	...	...	...	136·35	...
Naval Brigade†	44	...	...	159·09	...	22·72	...	22·72	22·72	22·72	204·53	45·44
Madras Sappers	119	193·27	...	352·94	...	235·29	...	8·40	...	...	789·90	...
1st Goorkha Light Infantry	460	132·82	...	124·56	4·34	147·82	...	10·86	6·52	...	416·06	10·86

* Includes one death on board ship after leaving Pérak.
† From 4th December, 1875, to 10th March, 1876.

TABLE III.—Admissions to the Sick List and Mortality among Officers belonging to the Laroot Field Force, from 4th December, 1875, to 10th March, 1876.

Corps.	Strength.	Sunstroke.		Fevers.		Dysentery and Diarrhœa.		Other Diseases.		Wounds.		Killed in Action.	Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.		Admitted.	Deaths.
Brigade Staff	5	..	..	..	..	..	..	..	..	..	..	1	..	1
3-5th Royal Artillery ..	3	..	..	..	..	1	..	..	..	..	..	..	1	..
The Buffs	19	..	..	..	..	3	1	2	1	..	..	..	5	2
Royal Engineers ..	4	..	..	1	..	1	..	1	..	..	..	..	3	..
Naval Brigade	4	..	..	..	..	1	..	..	..	..	..	..	1	..
Army Medical Depart. ..	5	1	..	..	..	..	..	..	..	1	..	..	2	..
Madras Sappers	1	..	..	..	..	1	..	1	..	..	..	..	2	..
1st Goorkha Light Infy.	9	..	..	..	..	2	..	..	..	..	..	..	2	..
Total	50	1	..	1	..	9	1	4	1	1	..	1	16	3

TABLE IV.—Ratio of Admissions to the Sick List and Mortality per thousand among Officers of the Laroot Field Force from 4th December, 1875, to 10th March, 1876.

Corps.	Strength.	Sunstroke.		Fevers.		Dysentery and and Diarrhœa.		Other Diseases.		Wounds.		Killed in Action.	Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.		Admitted.	Deaths.
Brigade Staff	5	..	..	..	..	..	..	..	..	..	..	200·00	..	200·00
3-5th Royal Artillery ..	3	..	..	..	..	333·33	..	..	..	..	..	..	333·33	..
Royal Engineers ..	4	..	..	250·00	..	250·00	..	250·00	..	..	..	..	750·00	..
The Buffs	19	..	..	..	..	157·89	52·63	105·26	52·63	..	..	..	263·15	105·26
Naval Brigade	4	..	..	..	..	250·00	..	..	..	..	..	..	250·00	..
Army Medical Depart...	5	200·00	..	..	..	..	..	..	..	200·00	..	..	400·00	..
Madras Sappers	1	..	..	..	..	1000·00	..	1000·00	..	..	..	..	2000·00	..
1st Goorkha Light Infy.	9	..	..	..	..	222·22	..	..	..	..	..	..	222·22	..

Meteorological Observations at Qualla Kangsa, for the Month of January, 1876.

Date.	Temperature in Shade.			Range.	Average Daily Temperature.	Temperature in Sun at 2 P.M.	Direction of Wind.	Remarks on the Weather.
	7 A.M.	Noon.	4 P.M.					
1st	75	86	89	14	83·33	103	N.	Fine day, rain at night.
2nd ..	76	85	77	9	79·33	94	N.	Cloudy day, rain at night.
3rd.. ..	75	83	80	8	79·33	98	N.	Cloudy morning, rainy afternoon
4th.. ..	75	85	76	10	78·66	96	N.S.E.	Cloudy morning, rain all night.
5th.. ..	76	88	84	12	82·66	111	N.S.E.	Morning fine, afternoon rain.
6th.. ..	75	86	85	11	82·00	121	N.	Morning foggy, thunder and rain at 6 P.M.
7th.. ..	74	85	88	14	82·33	118	N.	Morning very foggy, evening rain.
8th.. ..	75	88	79	13	80·66	Rain	N.S.E.	Morning fine, noon rain, evening fine.
9th.. ..	76	87	84	11	82·33	112	N.	Morning foggy, afternoon rain.
10th.. ..	75	87	85	12	82·33	111	N.	Morning fine, mist on hills, evening fine.
11th.. ..	77	86	86	9	83·00	113	N.	Morning fine, evening shower of rain.
12th.. ..	76	85	82	9	81·00	Rain	N.W.	Morning foggy, raining among hills, day squally.
13th.. ..	75	84	83	9	80·66	106	N.W.	Morning fine, evening fine, N.W. breeze.
14th.. ..	74	86	83	12	81·00	117	N.	Morning fine, evening fine.
15th.. ..	72	85	83	13	80·00	118	N.S.E.	Morning fine, evening fine.
16th.. ..	76	86	90	14	84·00	117	N.	Morning foggy, evening shower.
17th.. ..	75	87	88	13	83·33	115	N.	Morning cloudy, rain during the night.
18th.. ..	77	89	87	12	84·33	118	N.	Morning foggy, evening fine.
19th.. ..	76	88	87	12	83·66	108	N.S.E.	Morning fine, evening cloudy.
20th.. ..	77	87	86	10	83·33	115	N.W.	Morning fine, evening heavy rain.
21st	78	89	88	11	85·00	116	N.	Morning fine, evening heavy rain.
22nd ..	77	83	82	6	80·66	98	N,	Fine all day.
23rd ..	76	84	83	8	81·00	94	N.E.	Morning fine, afternoon cloudy.
24th.. ..	78	88	86	10	84·00	120	N.	Morning fine, evening cloudy.
25th.. ..	77	89	87	12	84·33	116	N.W.	Night close, day cloudy and close, evening fine.
26th.. ..	75	88	86	13	86·33	118	N.S.E.	Morning foggy, day cloudy, evening lightning in E.
27th.. ..	74	88	83	14	85·00	96	N.S.E.	Night close, morning foggy, rain at noon, evening fine.
28th.. ..	73	89	84	16	82·00	97	N.S.E.	Morning foggy, evening fine.
29th.. ..	77	85	83	8	81·66	103	N.	Morning fine, afternoon rain, evening fine.
30th.. ..	75	86	76	11	79·00	108	N.	Morning cool and cloudy, afternoon rain, evening fine.
31st	75	88	74	13	79·00	111	N.	Morning raw and foggy, afternoon showery, evening fine.
Average ..	75·22	86·77	84	11·25	82·10	109·24	N.S.E.	

Meteorological Observations at Qualla Kangsa, for the month of February, 1876.

Date.	Temperature in Shade.				Range.	Average Daily Temperature.	Direction of Wind.	Remarks on the Weather.
	6 A.M.	9 A.M.	2 P.M.	7 P.M.				
1st.. ..	72	83	88	79	16	80·5	N. & E.	Morning cloudy, noon rain, evening fine.
2nd ..	71	85	89	80	18	81·2	N.	Morning foggy, afternoon rain, evening fine.
3rd.. ..	74	84	87	79	13	80·0	N.E. S.E.	Fine all day.
4th.. ..	72	84	89	80	17	81·2	N.	Fine all day.
5th.. ..	74	85	87	79	13	81·2	N.	Morning foggy, evening fine.
6th.. ..	71	86	89	80	18	81·5	N. & E.	Morning rain and foggy, evening fine.
7th.. ..	72	88	95	78	23	83·2	N. E. N.	Morning foggy, day cloudy, evening fine.
8th.. ..	72	86	90	77	18	81·2	N. E. N.	Morning fine, afternoon heavy rain.
9th.. ..	71	76	88	79	17	78·5	N. E. N.	Morning foggy, day fine.
10th.. ..	70	77	91	81	21	79·7	N. V.	Morning foggy, day fine, evening cloudy.
11th.. ..	71	78	91	81	20	80·2	N. N.W.	Morning fine, afternoon cloudy, evening rain.
12th.. ..	74	79	92	83	18	82·0	N. V.	Morning fine, afternoon cloudy, evening squally.
13th.. ..	74	79	91	81	17	81·2	N. S. W.	Morning fine, afternoon cloudy, evening rain.
14th.. ..	76	80	90	80	14	81·5	N. V.	Morning fine, afternoon cloudy and squally.
15th.. ..	74	80	91	79	17	81·0	N. V.	Morning foggy, afternoon cloudy and squally.
16th.. ..	74	80	92	77	18	80·7	N. V.	Morning rain and foggy, afternoon cloudy, evening rain.
17th.. ..	72	76	90	78	18	79·0	N. V.	Morning rain and foggy day cloudy.
18th.. ..	73	80	93	79	20	81·2	N. V.	Morning foggy, afternoon rain, evening cloudy.
19th.. ..	76	82	92	82	16	83·0	N. V.	Morning foggy, day hot and close, evenining cloudy and close.
20th.. ..	77	82	94	83	17	84·0	N. V.	Morning foggy, day hot and close, evening cloudy and close.
21st.. ..	74	81	94	80	20	82·2	N. S. W.	Morning fine, afternoon cloudy, evening rain.
22nd ..	74	81	92	81	18	82·0	N. S. W.	Morning fine, evening cloudy.
23rd.. ..	74	81	92	82	18	82·2	N. V.	Morning foggy, heavy clouds in the evening.
24th.. ..	74	81	95	78	21	82·0	N. V.	Morning fine, afternoon thunder and rain.
25th.. ..	76	81	82	80	6	79·7	N. S. W.	Morning foggy, afternoon cloudy, evening rain.
26th.. ..	75	83	92	77	18	81·7	N. V.	Morning fine, afternoon cloudy, evening rain.
27th.. ..	74	82	93	78	19	81·7	N. S. W.	Morning cloudy, afternoon cloudy, evening rain.
28th.. ..	72	78	93	78	21	80·2	N. S.	Morning foggy, afternoon thunder with rain, and tremendous squall.
29th.. ..	74	80	95	78	21	81·7	N. V.	Morning cloudy, afternoon cloudy, evening rain.
Average ..	73	81	91	79	17	81·2	N. V.	

Meteorological Observations at Qualla Kangsa, from 1st to 13th March, 1876.

Date.	Temperature in Shade.				Daily Range.	Average Daily Temperature.	Direction of Wind.	Remarks on the Weather.
	6 A.M.	9 A.M.	2 P.M.	7 P.M.				
1st	75	82	90	78	15	81·2	N. V.	Morning cloudy, afternoon cloudy.
2nd	74	81	93	79	19	81·7	N. V.	Morning cloudy, afternoon rain, evening rain.
3rd	71	79	83	75	12	77·0	S. S. W.	Morning cloudy, afternoon cloudy, evening heavy rain.
4th	74	80	83	76	9	78·2	E. N. W.	Morning cloudy, afternoon rain, evening rain.
5th	75	80	82	75	7	78·0	N. V.	Raining all day.
6th	74	79	80	76	6	77·2	V.	Morning cloudy, afternoon and evening rain.
7th	72	76	79	76	7	75·7	N. V.	Morning raw and foggy, showery all day.
8th	74	79	91	81	17	81·2	N. V.	Morning cloudy, slight rain, afternoon fine.
9th	74	80	93	78	19	81·2	N. V.	Morning fine, afternoon fine, evening heavy rain.
10th	73	79	90	83	17	81·2	N. S. W.	Morning cloudy, day clear and hot.
11th	75	80	92	82	17	82·2	N. S. W.	Fine all day, but hot.
12th	72	78	90	80	18	80·0	N. S. W.	Fine all day, but hot.
13th	71	77	89	79	18	79·0	N. V.	Fine all day, and cool.
Average ..	73·38	79·23	87·30	78·30	13·92	79·43	N. V.	

As the accommodation for sick in the station hospital at Penang was limited, and preparation had not been made for an influx of sick from Pérak, the propriety of utilizing the "Czarewitch" as a hospital ship at the mouth of the Laroot river was taken into consideration, and at the request of Brigadier-General Ross I submitted the following suggestions:—

Qualla Kangsa, *5th February*, 1876.

1. The part of the ship between decks in front of the main hatch should be set apart for a hospital.

2. The whole of this space should be cleared of all bulkheads and other obstruction of a temporary nature.

3. Cots should be slung fore and aft at a height of about three feet from the deck, and there should be an allowance of 150 superficial feet to each cot.

4. The ventilation should be as complete as possible by means of shafts, windsails, scuttles, and hatches with extra apertures if necessary.

5. Two waterclosets should be constructed for dysenteric cases,—one on each side of the ship.

6. A space should be set apart under the awning on the deck, and arranged so that cots could be slung when deemed necessary by the medical officer.

7. A space should be set apart for the kits and clothes of the sick, which could be kept clean and readily fumigated.

8. A space should be set apart for a laundry.

9. A space should be set apart for cooking and the utensils in ordinary use in India should be employed.

10. A contrivance should be arranged for raising and lowering sick from the main to the spar deck, and *vice versâ*, when necessary.

11. Fumigation and lime washing between decks should be frequent, and great cleanliness enjoined.

12. Distilled water only should be used for cooking and drinking purposes, the condensing apparatus should therefore be in good order.

13. The Commissariat Department should be prepared to supply on board the "Czarewitch" carbolic acid, Condy's fluid, and lime.

Hospital bedding and clothing for 20 patients, and the following provisions:

Bread, mutton, fowls, eggs, milk (fresh or preserved), butter (if procurable), potatoes, vegetables, barley, rice, sago, arrowroot, flour, essence of beef, tea, sugar, salt, port wine, brandy, sherry, bottled porter and lime juice.

14. The following hospital establishment will be necessary:—1 medical officer; 1 subordinate medical officer; 2 European orderlies; 1 compounder; 2 ward coolies; 2 cooks; 1 water carrier; 2 sweepers.

15. Purveyor's establishment should be proportionately arranged by the commissariat officer.

16. Land transport should be arranged so that at least six sick could be carried to the landing place weekly.

17. All arrangements should be complete, and establishments in place before any sick are sent on board.

(Signed) G. S. Davie, M.D., *Surgeon-Major*,
Senior Medical Officer, Laroot Field Force.

Note.—Owing to the uncertainty of the movements of the force and other causes, the "Czarewitch" was not utilized as a hospital ship, and sickness having abated, it was not necessary to forward more sick to Penang.

The following suggestions to aid the Buffs in preserving their health were published in regimental orders, on board the "Arabia," on the 23rd November, 1875:—

1. Drink some tea or coffee and eat a bit of biscuit the first thing in the morning. Fill your water bottles with cold tea.

2. Drink only such water as is issued. Carefully abstain from well or pond water casually met with. As a rule stagnant and muddy water is bad.

3. Eat only ripe fresh fruits well known to be wholesome in India, and such as you have been accustomed to.

4. Stimulants should not be taken till the fatigue of the day is over, and should be diluted with hot or cold tea. Half an hour before the rum issue a dose of quinine should be taken, and arrangements will be made for a quinine issue.

5. When dry clean straw is available, sleep on it in preference to sleeping on the ground.

6. After exertion take the earliest opportunity of changing shirts and socks, at the same time washing the body or dry rubbing it, by so doing you will prevent a chill. Chills are very dangerous and to be carefully guarded against. Should no opportunity offer for changing the clothes, the great-coat should be thrown over the shoulders, so as to let the body cool gradually.

7. A clean skin is very conducive to health, and every opportunity for bathing parades should be taken advantage of.

8. Blistered feet are to a great extent prevented by soaping or oiling the feet well before starting on a march.

9. It is of the greatest importance to be able to sleep under cover at night, and in the absence of tents or other shelter, waterproof sheets may be utilized in a variety of ways, so as to protect from dew and emanation from the ground.

10. Cholera belts should be constantly worn and changed when the shirts are changed.

11. If there is no opportunity of washing shirts, cholera belts, and socks, they should be well dried in the sun, beaten with a stick, and then shaken.

12. Should the feet get wet, the earliest opportunity should be taken to change the socks, and foot-sore men should report themselves as soon after a march as possible.

13. If you feel out of sorts, and especially if you have any bowel complaint, report sick at once, as by doing this, you will have a good chance of not being detained in hospital for treatment.

(Signed) G. S. Davie, M.D., *Surgeon-Major, in Medical charge, the Buffs.*

Surgeon-Major W. Collis, the Buffs, ha desired me to append the following:—

Rules for Medical Officers accompanying the Perak Field Force.

1. Each medical officer will carefully look after the health and comfort of the men in his charge, and at once report any unusual occurrence to the principal medical officer.

2. Medical officers on detached duty will particularly look after arrangement of the camps, the source and purity of the water, the supply to the troops, the ventilation of the tent, the cleanliness of the men, and the general conservancy arrangements of the camp.

3. At regular intervals on the line of march, and always before going into action, medical officers will muster their doolie bearers, and register the names of the men appointed to each doolie. They will be good enough to instruct these men as to the duties they are expected to perform. One bheestie will accompany the medical officers, while the others keep their places in the column.

4. On the line of march, or previous to going into action, if the medical officer finds any deficiency in the medical comforts, surgical instruments, or hospital necessaries, he will at once report the matter to the "Principal Medical Officer," and at the same time send an indent for these articles necessary to complete his equipment.

5. In sending a patient to the rear or next hospital, the medical officer will send with the wounded or sick men a brief account of the nature of the wound, injury or disease, and the treatment he has adopted.

The accompanying form to be used:—

*Name*_____

Date.	Regiment.	No.	Wound, Injury, or Disease.	Treatment.
			Gun-shot Wound of Thigh, Upper Third	Bullet extracted. Bandage. Hæmorrhage, nil. Stimulants administered.

NOTE.—The object of this is obvious. The second medical officer at once sees the opinion of the officer who first saw and examined the man, and knows what has been done and what further ought to be attempted.

6. On the order of the "Principal Medical Officer," quinine will be served out daily at sunset to the troops under the superintendence of the medical officers. This may be given either in lime juice or in rum according to circumstances.

Rules are separately supplied to the force, and medical officers will exercise a general supervision, and instruct the men under their charge as to the proper carrying out of these instructions.

(Signed) W. COLLIS, *Surgeon-Major, the Buffs.*
P. M. O., Laroot Field Force.

Head Quarters, Camp, Qualla Kangsa,
December, 1875.

Draft of Rules for Men to observe while employed in Camp or Field.

1st. All diseases or affections, no matter how trivial, must be at once reported to the officer in medical charge of the column or detachment. These affections, although, in themselves, possibly trivial or apparently mild, in a *tropical climate*, if not at once attended to, may become serious.

2nd. It is of the utmost importance for the health of the troops that no man should sleep on the ground. Any one by placing wood or other materials under his bed or hammock can ensure a full current of air beneath his body.

3rd. Dysentery and other diseases are constantly produced in hot climates by the practice of men sleeping in wet clothes or exposing themselves to draughts of air while sweating; consequently soldiers are strictly cautioned against exposing themselves at night.

4th. Unless actually necessary, soldiers should not sleep outside their huts or tents.

5th. It being generally the opinion in India that drinking water, unless pure, is a common cause of disease, soldiers are particularly cautioned against using, under any circumstances, any water other than that which is provided for them. For the same reason, food, especially pork, other than that provided in their rations, should not be eaten.

This rule also applies most strictly to fruits, or any berry or root, which in most instances are poisonous, that may be met with on the line of march.

A common cause of men falling out on the line of march has, in every campaign, been owing to sore feet caused by a hard-pressing shoe. This may be entirely prevented by the following simple plan:—Before commencing the march, rub freely the inside of the boot with fat or oil and then put it on, now rub well the outside of the boot also.

This not only prevents foot soreness, but in cold weather keeps the feet warm.

If the boots get wet, never dry them at a fire or in the sun, but stuff them with dry grass and let them dry gradually, then rub well with oil or fat.

6th. For the maintenance of good health, it is absolutely necessary that the skin of the body should be kept clean.

This can be easily accomplished by bathing if a sufficient quantity of water can be obtained, and if not, by simple dry rubbing.

7th. If possible, the same shirt or clothes which were worn during the day should not be slept in at night. In India and malarious climates it is considered that fever may be prevented or cut short by a daily dose of quinine. This will be attended to by the officers in medical charge, but soldiers should see that they get their supply.

8th. It has been proved beyond doubt that those soldiers who, in any campaign, are most abstemious as to spirituous liquor, enjoy the best of health. As a daily ration of rum sufficient will be served out, soldiers are particularly cautioned against using or partaking of any country liquor as they go along, and most particularly as in many instances this has found to be purposely poisoned.

(Signed) W. Collis, *Surgeon-Major, the Buffs, P. M. O., Laroot Field Force.*

Head Quarters, Camp, Qualla Kangsa, *December*, 1875.

Concluding remarks.

In concluding this report, I may state that the number of medical subordinates attached to the force was quite equal to all the duties required.

With the exception of the cooks, the native hospital establishment was quite sufficient. There should have been at least four cooks.

The number of medical officers was as limited as it could well be, and as three out of five were on detached duty and one invalided, there was very little margin left for sickness; fortunately the medical officers were healthy, and performed all the duties required of them, but there should have been two additional surgeons with the European portion of the force.

(Signed) G. S. Davie, M.D., *Surgeon-Major. A.M.D., S. M. O., Laroot Field Force.*

Cawnpore, 23*rd May*, 1876.

APPENDIX No. IX.

BHAMO TO MANWYNE.

By W. J. Charlton, Surgeon, A.M.D.

In giving a short description of the country, its people, and productions, through which we marched, I will first begin with Bhamo, as it was here we disembarked on the 3rd of May, to begin our march to Manwyne in Yunan.

Bhamo is a wretched squalid village, lying along the left bank of the Irrawaddy 1,000 miles from its mouth and 500 feet above sea level, composed of two parallel rows of miserable bamboo houses with a partially ill-paved brick street, about one mile in length, running between them. A spiked bamboo stockade surrounds it, and at either end of the street is a large gate, which is closed every evening at dusk, and is not opened till daylight next morning.

These defences are necessary protections against raids from tigers, cheetahs, and leopards which are said to infect the neighbourhood, but especially against the wild men—Kakhyans—who inhabit the mountains called by the same name, which run north and south close to Bhamo and form the natural barrier between Burma and China.

Outside the northern gate lies the "Presidency," fenced round with a stockade and guarded by a force of 20 Sikhs. Here it is that the British official lives. Immediately outside his domicile are a few huts that the Kakhyans occupy temporarily when they descend to Bhamo, from their mountain homes, for commercial purposes. The Bhamoites regard them with so much dread that they will not allow them to remain inside the town after the shutting of the gates.

The population is a mixed one, of Burmans, Chinese, and Shans; the Burmans and Shans occupying one end, and the Chinese the other end of the town. They are governed by a Burma official, styled a "Woondouk," who is responsible for the correct administration of the place to the Court of Mandalay.

This official is, like all other native officials in Upper Burmah, a thorough despot, and, with a due regard to his own interests, "squeezes" every individual under his jurisdiction whom he thinks able to pay up. This epithet "squeezing" must not be accepted in its literal sense, it is a term used in Burmah, and I dare say in many other places, to denote the moral pressure brought to bear on the people by native officials.

With such an administrator as this it is not to be wondered at that the people are wretchedly poor, the land uncultivated, and no spirit of enterprise shown.

This applies, I understand, to all Upper Burmah—corruption reigns throughout the land from the King down to the lowest Tsilkay (magistrate), each official doing his utmost to enrich himself while his term of office lasts.

Merely the skeleton of a former trade exists; what little is done, is done by the Chinese who export bales of raw cotton, which comes up from Mandalay, across the mountains on mules to Yunan; worked cottons, silks, and hardware are also sent, but raw cotton is the main export.

From 20 or 25 years ago, it is said that a trade of 500,000*l.* annually was done between Bhamo and China, now I suppose it does not reach 10,000*l.*, and as Yunan has been almost depopulated by the late Panthay rebellion, the prospect of England, and especially Manchester, establishing a productive trade route in this direction, at present does not look bright.

In future years, if a population springs up in Yunan, the idea may be

entertained with good prospects of success, as this province, as well as Upper Burmah, are known to be rich in mineral wealth.

The country around Bhamo and up to the base of the Kakhyan hills, is undulating and thickly covered with low jungle wood, tall grass, and forest trees. No cultivation is seen, except small patches of rice and tobacco, around Bhamo and a few other villages, and none is grown save what is absolutely necessary for the people's own individual wants.

Our march from Bhamo to the Sekawat base of hills lay along a narrow path in this jungle, part of the way running parallel to the Tapeng, a river which flows down from the Kakhyan mountains and empties itself into the Irrawaddy, three miles above Bhamo. On two occasions we crossed it on bridges of boats, each crossing causing a good deal of delay. The distance to Sekaw is about 20 miles, but two marches were made of it, the first being to Halone, an intermediate village on right bank of Tapeng; this place and Sekaw have a mixed population like Bhamo, occupying separate portions of the villages, and like it and for similar reasons have stockades and gates. A magistrate (tsilkay) resides in each, who is subordinate to the Woondouk of Bhamo. The country around Tekaw is much more open than around Bhamo, it has a rich alluvial soil, seemingly the deposit of centuries, carried down by the Tapeng; luxuriant grass and rice crops flourish in this limited area, and the cattle seemed fat and well favoured, giving excellent milk; tigers, cheetahs, and leopards, as well as peafowl and small deer (derai), were said by the natives to abound.

Many of the officers went out shooting, and bagged snipe, wild duck, and two or three varieties of teal.

The Chinamen who live here are all engaged in trade, selling pork, salted fish, and salt. The latter commodity is a very precious article in the estimation of the Kakhyans who buy large quantities of it. I believe there is nothing they appreciate so much.

From Sekaw our march lay through the mountains to Manwyne These mountains are an off-shoot or spur of the Himalayas running directly north and south, and forming, as I previously said, the natural barrier between Burmah and China, though, to speak more correctly, the boundary is at the "Nam Poung Choung," nearly 20 miles inwards in the hills from Sekaw. They are mostly composed of limestone and granite, out of which flows water as sparkling as crystal and refreshingly cool. From base to summit they are in most instances covered with fine, tall, straight trees of various kinds, the chief being pines. Crowds of beautiful orchids are seen clustered along trunk and branches. A good deal of undergrowth is interpersed. The highest point crossed was Pey-see-Toh (White Stone) 5,400 feet above sea level, and here white raspberries, blackberries, white camelias, and the dog-rose flourished in abundance There are four different paths leading from Bhamo across these mountains into Yunan. Each one is a rugged steep and rocky track, along which men and mules are obliged to go in single file, although the mules usually carry from 175 lbs. to 200 lbs. in weight, nevertheless they ascend these difficult paths better than men, certainly far better than British soldiers and sepoys, perhaps not better than the Kakhyans During the wet season these paths become small mountain streams most difficult to cross. The Kakhyans, or, as the people of the plains call them, the "wild men," who inhabit these mountains, are a peculiar and interesting race of people, whose real history is, I believe, not known, but they are supposed not to have inhabited these mountains long, and to have migrated from the north towards Thibet. They are but few, leading a gregarious life, having their villages sparsely scattered through the mountains. A person may travel many miles and not meet one. The village system is, no doubt, adopted for its greater safety, and for their mutual protection, as, being by nature robbers and plunderers, their hands are against every man, and every man's hand against theirs.

In appearance they are somewhat taller than the Burmese, square, thick-set and muscular, copper-coloured, with Mongolian features, long black hair twisted into a lump on top of head, and fastened with a turban. No trace of tatooing or semblance of pig-tail, though having the Chinese bordering them closely on one side and the Burmese on the other. They are pleasing and jovial, inquisitive, independent, impulsive, superstitious, and remarkably dirty,

so much so that it is said they never wash, and once they put on a suit of clothing, they let it find its own wayoff. The men's dress consists of a loose blue calico coat ornamented with cowries; a few distinguished individuals wear on the breast a Victoria Cross in the shape of a portion of tiger's jaw with a few teeth in; this has been gained by the individual himself in some deadly contest, and he naturally wears it with pride as bearing testimony to his pluck and valour. A loose blue calico trowser is worn as far as the knee, and some wear on lower part of leg a calico gaiter. Just beneath the knee they wear several rings of hempen cord; for what purpose it is intended I do not know, unless it be for ornament.

Every man is armed to the teeth with a dak slung over the shoulder, a flint musket of the rudest construction, a powder-horn, and a spear. Beyond his village no Kakhyan moves unless armed, and in this manner they always go down to the plains when business brings them. Even to market he goes thus accoutred.

The women are, if anything, wilder-looking in expression than the men, and also wear blue calico cloth for their apparel, which consists of a neat jacket with short sleeves, adorned with red ribbon and 4-anna pieces; a loose skirt, embroidered at the bottom with silk; and around the waist and leg several coils of hempen cord. The married women wear a head-dress consisting of several folds of blue cloth neatly wound round and round in the shape of an inverted cone, from 1 foot to 1½ feet in height. On the top of this are several ornamental discs of silver.

The unmarried go bareheaded, having their front-hair cut straight across the forehead after the fashion seen sometimes among English girls; the back-hair is also cut short. As a rule, they are exceedingly ugly, though they have been described as beautiful; they in no way captivated the admiration of Tommy Atkins, who I positively heard ridiculing their good looks to a brother comrade. Both married and unmarried wear in their ears a small cylinder of silver, about 2 inches in length, with a broad piece of red tape hanging from the anterior end down to the shoulder. Though light copper-colour in complexion, still a rosy hue of health is discernible.

The sites for their villages are generally well chosen, being some well-cleared grassy spot amid the mountains, with sloping sides to carry down all water and refuse, so that the ground around is always quite dry and clean. In all cases sparkling streams of cool water flow close by.

Each house is a substantial, long building, from 60 to 70 feet in length, by about 25 to 30 in breadth, lofty, and raised 3 or 4 feet above the ground, built of strong posts, with enormously thick thatch of rice straw. There is but one entrance, which is at end of the house. Here the roof projects about 12 or 15 feet, and is supported by massive wooden pillars, on which are nailed for ornament or otherwise the heads and horns of deer and buffalo—a standing testimony to their skill with gun and cross-bow.

Generally may be seen under this portico nearly all the household squatted and in conversation, the women spinning yarn (coloured). Each house is divided into several compartments, holding many families. The only cultivation to be seen is rice on the hill sides. In the village may be seen buffaloes pigs, ducks, geese, and chickens.

Unfortunately for themselves they are a notoriously drunken race, consuming large quantities of Samshu, a clear and very intoxicating spirit, which they distil from rice. Like all savages they are very superstitious, believing in nats (demons). In every village may be seen numerous bamboo posts with several wicker baskets attached to them. In these are placed the fowls, rice, and other offerings which are given to propitiate the nats. No pagoda or trace of the Buddhist religion is seen once the plains are left. They have a custom that all riders shall dismount on entering a village, and not mount again till he has passed through. It was requested that we would conform to this, but such we did not do, as, however inclined we might be to be courteous, still we knew that the experience of former expeditions was loss of power by deferring in any way to these people, who in their ignorance ascribed all deference to weakness and cowardice. Tsaubwas (chiefs) rule over certain portions of these mountains, and derive an income from dues levied on all merchandise passing through their territory; where they think it

is possible to get it they exact black mail. They make their bargains beforehand, and one of these worthies tried to do so with us, but was informed that if he got anything it would not be till we had returned to Bhamo, and then it depended on the treatment we had received in passing through.

Robbery is very common, but fortunately for us we lost nothing of the large amount of Government stores, &c., we had with us. This may be attributed to the careful arrangements made by the Commanding Officer for the protection of the convoy; also to the fact that everything was done by us in an authoritative manner, which inspired the Kakhyans with a wholesome dread of us, as they saw plainly we would not tolerate any nonsense. Although they had never seen British troops before, still it was manifest by their behaviour that they had a healthy dread and respect for them. Why such should be the case it is difficult to say, but it may be perhaps that they have heard the Chinese and Burmese speak with respect (*sic*) of the "Foreign Devils."

From these mountain toils and pleasures we descended to Manwyne, the frontier Chinese Shan town. It is a wretched village (although Col. Sloden writes about the city walls), built of mud brick houses, situated between two ranges of the mountains on a fertile plain 70 miles in length, beginning at Momein, and having a breadth of 3 to 4 miles. The Tapeng is to be seen meandering through it. Elevation is about 3,400 ft. above sea level. The population is mostly Shan, who appear to be an industrious set of people, cultivating neat vegetable gardens and fields of rice, and breeding cattle, pigs, and poultry. The head official is an old widow of 70 years, who has occupied her present proud position since the death of her husband a few years back. Some of the officers thought they would pay her a visit, and, in conformity with the etiquette of the Manwyne Court, sent an intimation to this effect. The old lady sent back her best salaam to say she would be very glad to see them, and at the appointed hour they called at the palace, which is very little better than any other house in the place. They were ushered into a small verandah and accommodated with chairs, when presently the old lady made her appearance, attended by four hideous Shan maids of honour; she bowed to all, and sat down. Cups of tea, without milk or sugar, together with plantains, were passed round; then began a desultory conversation through the medium of an interpreter, the maids of honour and courtiers standing around with open mouths and gaping eyes. The old lady was perfectly reticent as to the object that brought us to Manwyne, never for a second alluding to it.

The day we marched in here the whole population—men, women, and children—turned out *en masse* to see us, and evinced the keenest curiosity in scrutinizing us and our property. They were, I understand, exceedingly struck with the coincidence of the Grosvenor party coming all the way from Pekin, and the escort from an opposite country and direction, and meeting within a day of each other in Manwyne. This fact utterly puzzled them, and at once taught them that we are a people who work under a great organisation, and that they are not beyond our reach should circumstances ever arise to require our presence.

Though no one was punished for poor Margary's murder, still our presence at Manwyne will, I dare say, have a healthy effect for some years at least. Locked in as they are in their mountain homes, they probably imagined that they were inaccessible to the "Foreign Devils"; now they have learned a different lesson, and I hope it may be for their future welfare. The costumes of both men and women are almost identical with that of the Kakhyens. In every particular, save that of language, there is much similarity between these two people.

Market days are held regularly, when large numbers of Shans, Chinese, and Kakhyans may be seen buying and selling.

All money transactions are effected in the copper coin of China, called "change," of which between 400 or 500 go to the rupee. These coins are generally strung on cord, and in this fashion are carried about in the hand.

Among the commodities I saw exhibited for sale were pork, geese, ducks, chickens, snails just fresh from the streams, rice, grain, dried figs, raspberries, camelias (with which the ladies adorn their hair), cottons, silk, cutlery, matches, powder-horns, flint-guns and daks.

The powder is of their own manufacture, and necessarily of a vile description. Nothing a Kakhyan appreciates so much, except perhaps a bottle, as some good English powder. In exchange for empty bottles the men bought plenty of fowls and eggs, and in one instance, I am informed, went so far as to eat 48 of the latter.

The province is rich in minerals; so much so that in the bazaars may be seen gold, silver, copper, tin, antimony, jade, and amber.

Our presence caused everything to rise considerably in price, as is generally the case where Englishmen go. Every one was anxious to bring away some memento of the place, whether it was dak, spear, powder-horn, pipe, or ladies' ear ornaments.

On this account our presence seemed to be appreciated, as they reaped a good harvest by us, which is, I presume, an uncommon thing in Manwyne; still there seemed to be a certain uneasiness among them with regard to us, not correctly understanding our notions or intentions, and no doubt a sigh of relief was given as they saw the last of our heels.

Our Commanding Officer treated them, on one of the days we spent there, to a display of military manœuvres, and if one is to judge by the astonishment depicted on the countenances of the multitude at each action of the troops, I should say they thought us greater foreign devils than ever. Strolling one market day through the bazaars, I saw a son of Esculapius practising his profession in the following fashion. First I must mention he was a young Shan of about twenty-five years of age, a shrewd cunning looking fellow: well, this medico stood in a prominent place in the market, having beside him a looking-glass and box of therapeutics. Several people consulted him, and the examination of every individual took the same form; first he or she was obliged to look into the glass while Dr. Shan pulled down the lower eyelid to let them see where part of the seeds of disease lay, then with a small rule he measured the length of each finger, also length and breadth of the palm, all this being done with an air and manner indicative of profound knowledge. By this examination the disease was diagnosed, and the patient received some nostrum from the infallible box, Dr. Shan receiving in turn so many change.

While on this subject, I may mention that the chief diseases of the place are small-pox—nearly a third of the people seem pitted—itch, scrofula, goitre, ague.

I saw several large goitres, but have been informed by the Grosvenor party that about Manwyne it does not seem to be nigh so prevalent as further on in the province towards Moneim and Talipoo; they neither saw nor heard of cretins. The goitre is no doubt due to the hard water coming through the limestone and granite which abound in the mountains. As soon as the people knew that I was a medical man, many of them came to consult me for scrofulous ophthalmia, and dyspepsia due to opium eating and smoking.

After a rest of three days in Manwyne, we gladly commenced our return journey, passing by the hot spring, in some rice-fields, where poor Margary was murdered, also the Banyan tree on which his head was exposed to the vulgar gaze.

(Signed) W. J. CHARLTON, Surgeon, A.M.D.

APPENDIX

Annual Abstract of Meteorological Observations

GIBRALTAR. Lat. 36° 6′ N.

Month.	Mean Pressure.	Air Temperature.										Tension of Vapour.	Relative Humidity.		
		Hourly Means.		Daily Means.		Means of.		Abs. Min.		Abs. Max.				Minimum.	
		9 a.m.	9 p.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.		Day.
January	30·145	52·9	...	...	...	48·1	60·0	40·0	9th	65·0	7th	·296	74·3	36·0	5th
February	30·150	57·5	...	...	...	52·4	65·6	46·0	7th	71·4	18th	·311	78·5	57.6	10th
March	30·051	59·3	...	...	...	53·4	66·4	47·0	24th	75·0	1st	·369	73·0	57·9	6th
April	30·057	62·4	...	...	...	55·9	70·2	47·0	15th	77·5	25th	·373	66·4	39 5	15th
May	29·971	65·6	...	...	...	60·9	74·6	56·0	12th	79·8	23rd	·453	72·0	54·5	26th
June	30·039	70·1	...	...	...	66·4	78·7	61·3	10th	82·0	23rd	·554	71·6	59·4	13th
July	30·050	76·5	...	...	...	70·9	85·1	63·0	3rd	95·0	25th	·680	74·2	49·0	25th
August	30·097	78·0	...	...	...	72·9	86·1	60·9	17th	92·6	24th	·743	77·0	57·0	24th
September ...	30·026	75·0	...	...	...	67·9	83·9	62·0	15th	90·7	1st	·666	76·0	60·5	13th
October	29·951	67·1	...	...	...	...	74·6	...	...	84·3	5th	·530	79·0	60·0	14th
November	30·006	62·4	...	...	...	57·3	71·0	50·0	5th	75·5	1st	·490	86·8	67·5	3rd
December	30·015	56·6	...	...	...	53·1	63·2	46·0	21st	72·5	1st	·415	92·2	79·2	10th
Mean	30·039	65·3	...	...	...	59·9	73·3	48·2	...	80·1	...	·495	77·0	55·6	..

MALTA. Lat. 35° 53′ N.

January	30·173	57·1	...	...	...	52·9	60·1	44·8	2nd	64·8	10th	·373	79·3	69·0	6th
February	30·080	58·0	...	...	...	53·2	62·1	47·8	10th	69·8	19th	·393	81·0	76·0	9th
March	29·912	60·0	...	...	...	54·2	63·2	41·2	21st	69·0	25th	·414	80·2	67·0	22nd
April	29·941	63·6	...	...	...	57·5	67·4	51·4	10th	74·0	15th	·490	83·8	68·2	25th
May	29·951	70·1	...	...	...	62·7	74·1	57·0	2nd	82·0	14th	·561	76·1	48·2	14th
June	29·917	78·1	...	...	...	66·4	76·6	61·4	4th	83·0	24th	·625	76·6	61·2	20th
July	29·970	78·3	...	...	...	71·7	82·2	69 0	3rd	88·0	25th	·726	74·6	57·2	9th
August	29·988	81·5	...	...	...	75·1	85·2	72·0	28th	90·4	25th	·802	74·8	59·2	15th
September	30·001	79·7	...	...	...	73·3	83·0	68·8	16th	91·0	12th	·767	75·7	58·0	14th
October	29·954	73·9	...	...	...	67·5	76·5	60·0	31st	85·0	1st	·629	74·9	59·0	20th
November	29·950	64·4	...	...	...	58·8	67·5	54·0	3rd	73·0	16th	·465	76·5	68·0	2nd
December	29·971	62·6	...	...	...	57·2	66·0	48·8	29th	74·0	7th	·450	79·0	71·0	13th
Mean	29·992	68·5	...	...	...	62·5	72·0	56·8	...	78·7	...	·558	77·7	63·0	...

SCUTARI. Lat. 41° N.

January	30·320	37·8	...	...	...	33·1	44·8	23·0	1st	62·0	6th	·191	84·6	66·0	6th
February	30·026	43·9	...	...	...	37·6	51·6	29·2	22nd	62·4	7th	·234	80·2	62·0	6th
March	29·832	50·6	...	...	...	42·6	59·9	32·6	9th	75·4	20th	·295	79·4	60·5	27th
April	29·960	54·2	...	...	...	43·6	64·5	33·0	9th	76·4	18th	·335	78·4	54·4	21st
May	29·914	63·6	...	...	...	51·4	75·8	40·3	22nd	88·2	27th	·431	73·6	51·0	27th
June	29·826	71·6	...	...	...	60·8	82·4	54·8	4th	92·2	28th	·564	72·4	45·6	28th
July	29·835	77·2	...	...	...	64·0	87·2	57·8	2nd	94·2	29th	·600	64·4	51·2	26th
August	29·853	76·4	...	...	...	63·7	87·4	54·7	21st	94·5	3rd	·621	68·6	52·0	18th
September	29·911	73·4	...	...	...	60·9	84·7	48·7	23rd	98·0	15th	·514	62·8	48·8	23rd
October	30·025	63·1	...	...	...	54·4	71·5	45·3	3rd	80·5	1st	·447	76·1	52·6	5th
November	29·942	48·2	...	...	...	42·5	55·5	29·0	12th	75·5	2nd	·280	83·4	61·0	13th
December	29·921	50·3	...	...	...	45·0	57·1	30·8	27th	64·4	9th	·308	84·9	66·4	23rd
Mean	29·947	59·2	...	...	...	49·9	68·5	39·9	...	80·3	...	·402	75·7	56·0	...

No. X.

taken at Foreign Stations in the Year 1876.

Long. 5° 20′ W. Height of Barometer Cistern above Sea, 53 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
5·2	3·46	0·64	23rd	12	...	...	...	...	11·0	12·0	..	1·5	6·5	7·0	2·0	1·0	3·5	4·0	5·5	...
5·3	2·31	0·92	12th	7	...	...	1	...	10·0	11·0	3	0·5	3·0	8·5	0·5	...	4·5	6·0	6·0	...
4·1	2·84	1·24	23rd	9	...	...	...	...	16·0	8·0	4	...	1·0	7·0	2·0	...	...	13·0	8·0	...
2·6	0·68	0·39	20th	3	...	...	...	...	21 0	5·0	1	...	...	8·0	...	...	2·0	15·0	5·0	...
4·0	0·61	0·30	18th	6	...	...	...	...	15 0	8·0	...	...	0·5	9·5	1·5	1·0	1·5	12·0	5·0	...
2·3	0·09	0·09	27th	1	...	...	...	4·5	22·5	3·0	...	...	...	5·5	0·5	1·0	2·0	15·0	6·0	...
1·4	...	...	...	...	...	...	...	...	26·5	0·5	...	...	...	22·5	1 0	3·5	0·5	3·5	...	...
2·3	...	...	...	...	...	...	...	...	22·0	3·0	...	...	0·5	20·5	...	...	0·5	8·5	1·0	...
2·1	0·04	0·02	30th	2	...	...	...	...	22 0	1 5	...	...	...	12·5	1·0	...	...	16·0	0·5	...
5·5	1·93	0·67	17th	9	...	...	1	...	8·5	9·5	2	0 5	0·5	15·5	0·5	0·5	0·5	9·5	3·5	...
4·8	9·87	2·60	8th	13	...	...	...	...	12·5	10·0	2	2·0	0·0	10·5	0 5	1·0	1·0	12·5	2·0	0·5
6·3	9·79	1·90	20th	18	...	1	1	...	7·5	14·0	2	5·5	3·5	3·0	...	1·5	7·5	3·0	7·0	...
3·8	31·62	2·60	8th Nov.	80	...	1	3	4 5	194·5	85·5	14	10·0	15·5	130·0	9·5	9·5	23·5	118·0	49·5	0·5

Long. 14° 30′ E. Height of Barometer Cistern above Sea, 70 feet.

7·0	2·33	0·59	17th	11	...	...	...	...	2·0	17·0	...	...	5·5	...	13·5	...	4·5	...	7·5	...
4·5	1·67	0·95	14th	5	...	...	...	...	7·0	7 0	...	...	6·0	...	1·5	...	4·5	...	17·0	...
5·0	0·73	0·37	20th	3	...	...	...	...	7·0	9·0	...	...	3·5	...	7·0	...	2·5	...	18·0	...
5·0	1·20	0·38	1st	7	...	...	1	...	6·0	10 0	...	...	5·0	...	8·0	...	5·5	...	11·5	...
3·5	0·05	0·03	7th	2	...	..	...	...	15·0	8·0	...	0·5	5·5	...	12·5	...	2·5	...	10·0	...
3·0	0·51	0·30	6th	4	...	...	...	...	15·0	6·0	...	0·5	10·0	0·5	5·0	...	0·5	0·5	13·0	...
2·0	0·00	0·00	...	...	...	...	...	...	22·0	2·0	...	1·5	6·0	...	0·5	...	0·5	1·5	21·0	...
3·0	0·00	0·00	...	...	...	...	...	...	15·0	2·0	...	0·5	10·5	1·5	3·5	0·5	2·0	0·5	12·0	...
4.8	0·02	0·02	15th	1	...	...	...	...	5·0	7·0	...	2·5	5·5	2·0	4·5	0·0	4·5	0·5	10·5	...
6·0	3·52	1·44	16th	9	...	...	...	...	4·0	13 5	...	1·5	4·0	0·5	8·0	1·0	3·0	2·5	10·5	...
6 9	0·96	0·28	3rd	6	...	...	...	...	...	16·0	...	...	0·5	...	3·5	1·0	5·5	1·0	18·5	...
5·5	0·24	0·10	26th	3	...	...	...	...	2·5	9·0	...	2·0	0·5	0·5	3·0	1·5	8·5	6·0	9·0	...
4·7	11·23	1 44	16th Oct.	51	...	...	1	...	100·5	106·5	...	9·0	62 5	5·0	70·5	4·0	44·0	12·5	158·5	...

Long. 29° 3′ E. Height of Barometer Cistern above Sea, 60 feet.

6·7	1·36	0·40	6th	18	5	...	...	...	6·0	17·0	1	6·0	7·5	7·5	1·5	2·5	3·0	0·5	1·0	1·0
6·9	1·45	0·56	9th	11	...	..	2	...	5·5	16·5	1	3·5	5·5	4·0	2·0	8·0	4·5	1·0	...	0·5
6·4	2·72	0·85	8th	12	1	...	...	1	9·5	15·0	...	6·5	5·0	2·5	1·5	7·5	7·0	...	...	1·0
5·4	0·58	0·27	6th	7	...	...	1	...	11·5	12·0	...	1·5	17·0	0·5	0·5	1·0	4·5	1·5	...	2·5
4·4	1·83	0·78	30th	7	...	...	4	...	15·5	8·0	...	3·5	12·0	1·0	...	3·0	8·0	2·0	...	0·5
3·8	0·94	0·37	16th	8	...	...	7	...	16·0	3·0	...	1·5	5·0	0·5	...	12·0	8·5	1·5	...	0,5
3·5	3·70	3·10	5th	3	...	...	3	...	18·0	4·0	...	4·5	17·5	3·5	...	1·5	3·0	0·5	0·5	...
3·8	3·73	1·48	11th	6	...	...	4	...	16·5	5·0	...	4·5	15·5	3·5	...	4·0	2·0	0·5	...	0·5
3·3	1·43	0·87	26th	5	...	...	...	...	17·0	1·5	...	4·0	9·5	2·0	...	5·0	4·5	1·0	2·0	2·0
6·0	1·50	0 38	15th	10	...	..	1	...	11·0	14·5	...	2·0	16·5	5·5	0·5	1·0	2·0	0·0	0·5	2·5
7·8	5·86	1·06	11th	20	2	1	...	...	3·5	20·0	...	8·5	6·0	3·0	3·5	2·0	1·5	2·5	2·0	0·5
7·3	5·08	1·37	27th	15	3	...	...	...	4·0	21·0	3	3·0	3·5	2·5	1·5	2·5	11·5	3·5	...	3·0
5·4	30·18	3·10	5th July	122	11	1	22	1	134·0	137·5	5	49·0	120·5	36·0	11·0	50·0	60·0	14·5	6·0	14·5

January ½ day short. April 1 day short. May 1 day short. June ½ day short. August ¼ day short. October ½ day short. November ½ day short. } Wind obs. × 4½ days short.

Appendix

Annual Abstract of Meteorological Observations

Fort Napier, Natal. Lat. 29° 3′ S.

Month.	Mean Pressure.	Air Temperature.										Tension of Vapour.	Relative Humidity.		
		Hourly Means.		Daily Means		Means of		Abs. Min.		Abs. Max.				Min.	
		9 a.m.	9 p.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.		Day.
January	29·803	71·7	...	...	...	60·3	81·8	54·6	22nd	97·7	2nd	·528	67·4	49·0	28th
February	29·819	73·2	...	...	...	62·6	84·2	54·0	23rd	94·3	2nd	·537	65·6	38·8	3rd
March	29·916	70·4	...	...	...	57·4	82·8	44·3	10th	95·1	13th	·463	62·2	32·7	15th
April	30·046	65·7	...	...	...	53·8	77·1	45·8	27th	90·4	9th	·439	69·5	45·0	30th
May	30·040	61·7	...	...	...	48·7	75·2	39·5	28th	89·7	5th	·335	60·8	38·0	29th
June	30·120	57·1	...	...	...	45·3	71·1	34·6	30th	83·6	6th	·290	62·2	32·0	27th
July	30·141	56·9	...	...	...	43·3	73·5	35·8	9th	91·4	4th	·271	58·6	37·2	24th
August	29·929	64·7	...	...	...	50·6	77·5	37·6	31st	94·5	29th	·304	49·1	26·0	2nd
September	29·958	66·4	...	...	...	54·4	77·5	42·8	1st	97·9	22nd	·395	61·6	26·2	1st
October	29·954	69·5	...	...	...	53·2	81·2	40·8	1st	99·1	11th	·391	53·9	23·0	5th
November	29·866	68·8	...	...	...	55·4	79·7	43·7	12th	98·3	30th	·445	62·4	43·5	30th
December	29·778	71·7	...	...	...	58·8	85·0	49·7	10th	106·2	14th	·497	62·2	35·6	13th
Mean	29·947	66·5	...	...	...	53·6	78·9	43·6	...	94·8	...	·408	61·3	35·6	...

Sierra Leone. Lat. 8° 29′ N.

January	29·898	82·0	...	...	...	72·1	90·9	67·0	2nd	95·0	11th	·853	78·0	67·0	3rd
February	29·900	82·4	...	...	...	72·0	91·1	70·0	9th	98·0	10th	·822	74·4	55·0	15th
March	29·874	83·9	...	...	...	73·8	93·0	68·0	23rd	97·0	24th	·885	76·0	64·0	22nd
April	29·904	83·9	...	...	...	73·6	93·6	67·0	25th	96·0	7th	·920	79·4	69·0	16th
May	29·934	83·3	...	...	...	71·4	92·2	66·0	21st	97·0	5th	·905	79·3	64·0	2nd
June	29·987	83·4	...	...	...	71·9	91·2	67·0	14th	96·0	4th	·903	78·9	67·0	16th
July	30·006	79·4	...	...	...	69·0	86·3	64·0	10th	97·0	3rd	·822	82·4	67·0	25th
August	29·985	78·9	...	...	...	68·7	83·6	66·0	23rd	90·0	20th	·808	81·5	64·0	26th
September	29·956	80·0	...	...	...	68·5	84·9	65·0	13th	92·0	30th	·834	81·5	68·0	16th
October	29·950	81·2	...	...	...	68·5	88·0	64·0	31st	94·0	4th	·878	82·7	75·0	8th
November	29·919	80·8	...	...	...	67·6	89·0	63·0	3rd	92·0	13th	·852	81·0	63·0	28th
December	29·940	82·0	...	...	...	69·3	89·5	67·0	5th	93·0	18th	·877	80·0	72·0	9th
Mean	29·938	81·8	...	...	...	70·5	89·4	66·2	...	94·7	...	·863	79·6	66·3	...

Barbadoes. Lat. 13° 4′ N.

January	30·029	79·1	...	...	...	72·2	82·8	64·0	16th	86·0	7th	·697	69·8	51·3	6th
February	30·093	79·5	...	...	...	71·2	84·1	65·0	13th	86·0	25th	·636	63·4	46·1	14th
March	30·033	80·2	...	...	...	72·1	84·9	68·0	7th	87·0	20th	·641	62·0	46·0	25th
April	30·048	82·0	...	...	...	73·2	86·0	70·0	23rd	88·0	3rd	·693	63·2	53·4	18th
May	30·033	82·9	...	...	...	75·0	85·6	72·0	5th	89·0	29th	·739	65·6	50·8	9th
June	30·066	82·6	...	...	...	76·6	86·1	71·0	11th	89·0	19th	·752	67·4	57·0	20th
July	30·060	82·1	...	...	...	75·6	85·7	70·0	4th	87·6	27th	·780	71·2	60·0	7th
August	30·038	83·3	...	...	...	74·4	87·8	72·0	1st	90·0	30th	·809	71·2	57·0	30th
September	29·991	83·3	...	...	...	74·0	88·1	70·0	30th	93·0	11th	·786	69·2	50·4	8th
October	29·990	82·5	...	...	...	74·0	86·5	72·0	10th	87·5	23rd	·820	74·0	63·2	28th
November	29·983	83·2	...	...	...	74·6	87·0	73·0	2nd	89·5	7th	·816	72·0	61·0	10th
December	30·005	82·5	...	...	...	73·3	86·6	71·5	1st	88·0	3rd	·740	66·4	54·0	28th
Mean	30·031	81·9	...	...	...	73·8	85·9	69·9	...	88·4	...	·742	67·9	55·0	...

No. X.—*continued.*

taken at Foreign Stations in the Year 1876.

Long. 30° 2′ E. Height of Barometer Cistern above Sea, 2,200 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
6·8	4·77	2·05	3rd	10	...	...	7	...	8·0	20·0	...	1·0	4·5	18·5	4·5	1·5	...	...	...	1·0
7·2	7·23	1·31	3rd	20	...	...	11	...	6·5	19·0	...	1·0	3·5	14·5	7·0	0·5	...	...	1·0	1·5
6·0	1·71	0·90	8th	5	...	...	9	...	10·5	17·0	...	1·0	2·5	20·0	2·5	1·0	...	...	1·5	2·5
5·3	3·17	1·29	20th	8	...	...	1	...	13·0	15·0	...	1·0	1·5	21·0	2·5	1·5	...	1·5	0·5	0·5
3·8	0·20	0·09	6th	3	...	...	1	...	18·0	10·5	...	0·5	3·5	17·5	6·5	1·5	...	...	1·5	...
3·0	0·01	0·01	26th	1	...	...	1	...	21·0	8·0	...	0·5	4 0	16·0	7·0	0·5	0·5	...	1·5	...
1·9	0·20	0·20	25th	1	...	...	...	...	26·0	5·0	...	...	2·0	18·0	5·5	1·0	0·5	...	0·5	3·5
3·9	0·60	0·50	26th	2	...	...	...	...	18·0	12·0	1	1·5	2·5	11·5	4·5	1·5	0·5	2·0	6·5	0·5
6·6	3·20	1·24	27th	11	...	...	10	...	11·0	18·5	1	0·5	6·0	14·5	4·0	0·5	...	1·0	3 5	...
5·2	3·05	2·90	26th	4	...	...	2	...	13·5	14·5	...	0·5	5·0	15·5	4·5	2·0	...	...	3·5	...
6·7	2·71	1·80	22nd	13	...		10	...	8·0	21·0	...	0·5	3·5	18·5	4·5	2·5	...	...	0·5	...
6·5	2·08	0·70	17th	15	...	1	10	...	9·5	20·0	1	1·5	9·0	14·0	3·5	...	...	...	2·5	0·5
5·2	28·93	2·90	26 Oct.	93	...	1	62	...	163·0	180·5	3	9·5	47·5	199·5	56·5	14·0	1·5	4·5	23·0	10·0

Long. 13° 9′ W. Height of Barometer Cistern above Sea, 224 feet.

5·2	...	...	...	...	...	...	...	...	6·5	5·0	2	22·0	1·5	3·0	...	...	...	4·0	...	0·5
6·7	0·07	0·07	5th	1	...	...	...	...	3·0	15·0	3	20·0	1·5	2·5	...	...	...	5·0	...	...
6·1	0·35	0·22	23rd	2	...	...	1	...	3·0	8·0	2	19·0	5·0	0·5	...	...	...	6·5	...	...
6·5	5·30	2·23	17th	5	...	...	8	...	1·0	9·0	...	17·0	2·5	4·0	...	...	...	6·5	...	...
7·1	16·23	3·62	21st	18	...	...	8	...	...	12·0	3	9·0	2·0	7·5	0·5	...	...	10·5	...	1·5
6·0	19·40	3·22	1st	22	...	...	5	...	...	12·0	1	5·5	0·5	10·5	0·5	0·5	1·0	10·5	0·5	0·5
7·0	33·17	4·35	12th	26	...	...	1	...	...	10·0	2	3·5	0·5	4·5	...	...	...	20·5	...	2·0
7·0	34·03	4·31	13th	28	...	...	3	...	...	8·0	...	2·0	...	1·0	...	...	...	28·0	...	...
6·2	46·67	3·27	1st	28	...	...	5	...	...	6·0	...	2·5	...	4·0	...	...	...	22·0	...	1·5
6·0	12·68	2·13	7th	23	...	...	9	...	0·5	1·0	...	2·5	2·0	6·0	...	...	0·5	12·5	...	7·5
5·0	4·78	1·03	27th	13	...	...	11	...	3·0	2·0	...	6·0	1·0	4·5	0·5	...	...	12·0	0·5	5·5
4·0	0·24	0·24	5th	1	...	...	2	...	12·5	...	...	11·0	2·5	2·5	...	...	...	6 0	1·0	8·0
6·1	172·92	4·35	12 Jly.	167	...	...	53	...	29·5	88·0	13	120·0	19·0	50·5	1·5	0·5	1·5	144·0	2 0	27·0

Long. 59° 40′ W. Height of Barometer Cistern above Sea, 30 feet.

5·8	3·19	1·42	7th	15	...	...	...	...	7·0	7·0	...	...	16·0	5·5	9·5	...	...	...	...	...
4·6	0·31	0·18	28th	11	...	...	...	...	8·0	3·0	...	...	25·5	3·5	...	...	...	...	...	...
5·5	1·70	0·67	2nd	10	...	...	...	...	7·0	6·0	...	...	26·0	4·0	1·0	...	...	...	...	...
5·7	0·90	0·25	18th	8	...	...	...	...	1·0	4·0	...	...	27·5	0·5	2·0	...	...	...	...	...
7·9	2·26	0·45	10th	14	...	...	...	...	...	16·0	1	0·5	21·5	1·0	8·0	...	...	...	...	...
7·2	4·14	1·45	11th	13	...	...	1	...	...	10·0	1	...	25·5	1·0	3·5	...	...	...	...	...
6·8	7·31	2·50	5th	19	...	...	2	...	0·5	9·5	1	...	22·5	7·0	1·5	...	...	...	...	...
6·4	2·70	1·30	3rd	7	...	...	1	...	1·0	6·0	...	...	21·5	3·0	6·0	...	0·5	...	...	...
7·2	11·91	3·50	24th	17	...	...	1	...	...	13·0	1	...	26·0	1·5	2·5	...	...	...	...	...
8·5	10·20	3·25	10th	14	...	...	...	...	...	8·0	...	...	24·5	2·0	4·5	...	...	...	...	...
5·7	2·45	0·60	20th	8	...	...	...	...	0·5	4·0	...	...	25·0	1·0	4·0	...	...	...	...	...
6·2	3·04	0·65	7th	13	...	...	2	...	0·5	4·0	...	...	27·0	1·0	3·0	...	...	...	...	...
6·3	60·61	3·50	24Sept	149	...	...	7	...	25·5	90·5	4	0·5	288·5	31·0	45·5	...	0·5	...	...	...

Appendix

Annual Abstract of Meteorological Observations

Newcastle, Jamaica. Lat. 18° 62′ N.

Month.	Mean Pressure.	Air Temperature. Hourly Means. 9 a.m.	Hourly Means. 9 p.m.	Daily Means. Simple.	Daily Means. Reduced.	Means of Min.	Means of Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Relative Humidity. Mean.	Relative Humidity. Minimum.	Relative Humidity. Minimum. Day.
January	30·054	63·0	...	...	...	...	73·0	...	...	80·0	20th	·447	78·5	45·0	11th
February	30·117	63·9	...	...	...	...	76·0	...	...	81·0	22nd	·424	71·0	52·9	15th
March	30·063	65·3	...	...	...	...	75·4	...	...	79·0	2nd	·445	72·8	60·0	22nd
April	30·131	68·8	...	...	...	55·4	75·6	52·0	4th	81·4	28th	·498	70·5	46·5	14th
May	30·153	70·4	...	...	...	56·4	77·1	52·0	18th	83·0	10th	·582	80·0	58·0	10th
June	30·188	73·2	...	...	...	60·1	81·6	54·0	3rd	86·0	15th	·568	70·0	56·1	11th
July	30·160	72·1	...	...	...	61·4	80·2	58·0	18th	86·0	16th	·560	71·0	55·0	7th
August	30·127	72·9	...	...	...	60·2	81·4	58·0	7th	86·0	6th	·568	70·0	55·0	22nd
September ...	30·002	72·5	...	...	...	60·7	81·5	57·0	26th	87·0	30th	·603	76·0	65·0	9th
October	29·985	70·2	...	...	...	59·0	77·5	52·0	15th	83·0	3rd	·584	78·5	53·0	6th
November	29·972	70·6	...	...	...	59·3	79·0	57·0	26th	85·0	29th	·570	75·0	61·0	29th
December	30·064	69·8	...	...	...	57·8	78·6	51·0	3rd	84·0	25th	·555	76·0	61·0	14th
Mean	30·085	69·4	...	...	...	58·9	78·1	54·6	...	83·5	...	·534	74·1	55·7	...

Up-Park Camp, Jamaica. Lat. 17° 59′ N.

January	30·023	83·8	...	...	...	64·1	98·0	60·0	4th	101·0	1st	·586	50·7	43·0	9th
February	30·091	85·8	...	...	...	64·2	95·7	60·0	19th	98·0	16th	·588	50·7	43·3	1st
March	29·997	82·8	...	...	...	64·0	96·6	63·0	1st	98·0	10th	·691	62·0	53·7	19th
April	30·027	84·9	...	...	...	64·1	98·7	63·0	3rd	99·0	7th	·683	56·4	52·0	12th
May	30·005	85·0	...	...	...	64·2	98·6	63·0	31st	99·0	28th	·718	59·5	55·0	30th
June	30·020	87·4	...	...	...	64·3	98·6	63·0	9th	99·0	21 dys	·714	54·7	44·8	22nd
*July	30·060	87·4	...	...	...	...	100·4	...	...	102·0	17th	·664	50·8	43·0	7th
*August *... ...	30·128	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*September ...	30·076	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	29·849	82·7	...	...	...	55·5	...	54·0	6th	...	...	·785	70·4	58·0	5th
November	29·743	82·0	...	...	...	55·0	...	53·0	2nd	...	...	·767	73·6	57·0	9th
December	29·758	85·0	...	...	...	54·6	...	50·0	2nd	...	...	·799	65·6	55·0	28th
Mean	29·981	84·7	...	...	...	61·1	...	58·8	...	...	...	·699	59·4	50·5	...

Nassau, Bahamas. Lat. 25° 5′ N.

January	30·265	73·4	...	...	...	66·8	76·8	62 2	15th	80·7	31st	·523	64·0	52·1	15th
February	30·196	74·7	...	...	...	66·2	78·9	61·3	5th	83·6	3rd	·604	70·0	52·4	25th
March	30·153	73·9	...	...	...	66·3	78·2	62·4	30th	83·2	17th	·572	68·4	55·0	24th
April	30·127	77·9	...	...	...	67·5	83·5	61·4	8th	89·1	29th	·636	65·8	49·0	6th
May	30·088	80·9	...	...	...	71·5	86·5	67·1	13th	93·6	2nd	·715	68·0	55·8	7th
June	30·089	82·0	...	...	...	73·9	88·0	70·1	3rd	91·2	5th	·780	71·6	51·3	12th
July	30·122	85·6	...	...	...	74·6	90·7	72·4	24th	94 6	17th	·784	63·4	57·0	9th
August	30·087	84·8	...	...	...	74·7	90·9	71·6	23rd	94·5	5th	·798	65·6	55·5	24th
September ...	30·012	82·8	...	...	...	73·0	89·1	68·0	6th	94·5	15th	·823	72·4	60·8	21st
October	30·016	81·3	...	...	...	73·8	86·2	67·5	22nd	95·7	15th	·771	72·4	55·0	27th
November	30·039	74·6	...	...	...	68·4	79·3	60·0	30th	87·0	2nd	·627	73·1	62·0	22nd
December	30·104	70·6	...	...	...	65·8	76·3	53·5	1st	85·0	7th	·582	76·5	53·0	3rd
Mean	30·108	78·5	...	...	...	70·2	83·7	64·8	...	89·4	...	·685	69·3	54·9	...

* July Observations of Temperature and Wind, 1st to 19th only. August and September, Instruments in store (Observatory blown down, 19th July).

No. X.—*continued.*

taken at Foreign Stations in the Year 1876.

Long. 76° 42′ W. Height of Barometer Cistern above Sea, 3,800 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	*Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
4·0	16·40	2·00	8th	15	...	...	...	...	11	10	...	...	6·5	...	...	...	...	...	12·0	12·5
1·7	0·70	0·25	14th	4	...	...	...	...	23	...	...	...	1·0	...	...	...	...	...	6·0	22·0
2·2	2·15	0·50	7th	6	...	...	...	...	22	...	...	...	2·5	...	...	...	...	...	6·5	22·0
5·3	12·15	2·50	24th	18	...	...	...	...	9	10	...	...	1·5	...	5·5	7·5	2·5	...	0·5	12·5
6·5	8·11	1·83	15th	25	...	...	2	...	1	10	3	...	5·0	1·0	6·5	5·0	3·5	0·5	...	9·5
4·9	9·02	2·32	3rd	17	...	...	2	...	10	6	2	...	1·0	0·5	18·0	1·5	...	0·5	...	8·5
4·8	10·65	6·00	20th	9	...	...	3	...	9	6	2	...	...	3·5	11·5	6·0	0·5	...	...	9·5
5·3	9·28	2·10	25th	16	...	...	5	...	9	8	...	...	...	1·5	6·0	3·5	0·5	1·0	...	18·5
5·1	11·65	1·75	16th	18	...	...	4	...	10	10	3	...	...	1·0	11·0	2·5	...	2·0	...	13·5
5·4	27·17	5·80	15th	19	...	...	3	...	11	10	4	...	...	12·0	7·0	0·5	1·5	1·0	...	9·0
5·2	12·63	2·35	10th	21	...	...	1	...	10	9	...	...	...	6·5	5·5	1·5	...	2·0	...	14·5
3·9	4·21	1·85	29th	10	...	...	1	...	16	5	1	2·0	5·0	12·0	...	0·5	0·5	...	...	11·0
4·5	124·12	5·80	15th Oct.	178	...	...	21	...	141	84	15	2·0	22·5	38·0	71·0	28·5	9·0	7·0	25·0	163·0

Long. 76° 56′ W. Height of Barometer Cistern above Sea, 235 feet.

6·1	12·93	3·60	6th	7	...	...	...	...	2·0	7	...	...	3·5	6·0	21·5	...	...	...	...	...
3·9	0·54	0·50	27th	4	...	...	...	...	7·5	0·5	1	0·5	4·5	2·5	21·5	...	...	...	...	...
2·6	0·03	0·03	15th	1	...	...	...	...	28·0	...	...	...	8·5	...	22·0	...	0·5	...	...	...
2·9	1·61	0·56	30th	4	...	...	...	...	23·0	...	...	1·0	6·5	...	22·5	...	...	...	...	...
3·1	3·76	1·25	16th	13	...	...	...	...	22·0	...	...	...	3·5	...	27·0	...	0·5	...	...	...
3·1	0·94	0·65	3rd	3	...	...	...	...	22·0	...	...	0·5	1·0	4·0	23·0	1·5	...	...	...	...
3·3	6·59	2·40	19th	11	...	...	7	...	19·0	1·	1	0·5	3·5	8·0	6·0	0·5	...	0·5	...	...
3·6	4·09	1·12	17th	14	...	...	...	...	17.5	...	...	...	...	...	...	...	...	...	...	...
4·0	6·23	2·14	15th	13	...	...	4	...	9·0	...	...	...	...	...	...	...	...	...	...	...
3·7	14·74	5·91	14th	16	...	...	...	...	16·5	...	1	...	11·0	6·5	13·0	0·5	...	...	...	...
3·8	6·03	1·15	25th	18	...	...	...	...	15·0	...	...	1·5	10·0	12·0	6·5	...	...	...	...	...
3·2	3·14	1·40	29th	7	...	...	3	...	25·0	...	...	3·5	12·0	9·0	6·5	...	...	...	...	...
3·6	10·63	5·91	14th Oct.	111	...	...	14	...	206·5	8·5	3	7·5	64·0	48·0	169·5	2·5	1·0	0·5	...	...

Long. 77° 21′ W. Height of Barometer Cistern above Sea, 44 feet.

6·3	0·64	0·26	28th	4	...	...	...	...	2	9	...	3·0	19·0	3·0	5	...	...	...	1·0	...
7·6	2·42	1·25	4th	6	...	...	...	...	...	17	...	2·0	10·0	6·0	6	1	2	...	2·0	...
5·5	2·29	1·89	25th	2	...	...	...	...	1	13	...	4·0	11·0	3·0	5·5	...	2·5	3	2·0	...
6·3	2·14	1·56	16th	2	...	...	...	...	1	9	...	6·5	14·5	0·5	4·5	1·0	0·5	1	1·5	...
7·0	14·17	5·20	28th	8	...	...	...	...	...	16	...	2·5	19·0	2·0	5·0	0·5	0·5	0·5	1·0	...
8·2	11·64	4·94	10th	12	...	...	3	...	...	22	...	0·5	12·5	5·5	9·5	1·5	...	...	0·5	...
7·0	3·07	0·61	1st	12	...	...	5	...	...	17	...	0·5	13·5	2·0	14·0	1·0	...	...	...	...
7·5	5·68	1·85	22nd	11	...	...	6	...	...	22·5	...	0·5	11·5	3·5	9·5	...	1·5	1·5	3·0	...
6·5	20·48	4·24	27th	21	...	...	5	...	3	11·0	...	1·0	12·0	2·5	9·5	1·0	1·0	...	2·0	1·0
4·5	4·62	1·52	14th	17	...	...	...	...	4	7·0	1	1·0	9·0	4·0	10·0	...	...	3·0	4·0	...
5·5	5·70	3·33	8th	7	...	...	...	...	8	8·0	1	1·5	14·0	1·0	1·0	0·5	3·0	0·5	6·0	2·5
4·1	2·60	1·73	10th	8	...	...	...	4	15	4·5	1	3·0	11·0	0·0	7·0	1·0	1·0	2·0	6·0	...
6·3	75·45	5·20	28th May	110	...	...	19	4	34	156	3	26·0	157·0	33·0	86·5	7·5	12·0	11·5	29·0	3·5

* No Anemometer on the station.

Appendix

Annual Abstract of Meteorological Observations

Bermuda. Lat. 32° 17′ N.

Month.	Mean Pressure.	Air Temperature. Hourly Means. 9 a.m.	Hourly Means. 9 p.m.	Daily Means. Simple.	Daily Means. Reduced.	Means of Min.	Means of Max.	Abs. Min. Temp.	Abs. Min. Day.	Abs. Max. Temp.	Abs. Max. Day.	Tension of Vapour.	Relative Humidity. Mean.	Relative Humidity. Min.	Relative Humidity. Day.
January	30·253	64·1	...	...	...	57·9	68·4	51·6	14th	75·7	31st	·408	67·6	47·6	22nd
February	30·169	65·0	...	...	...	58·7	69·5	49·0	25th	75·3	5th	·426	69·5	54·0	20th
March	30·054	62·4	...	...	...	55·1	66·9	45·1	5th	73·3	17th	·371	65·9	51·8	7th
April	30·085	66·6	...	...	...	59·2	70·6	54·0	10th	79·3	25th	·440	67·6	51·2	22nd
May...	30·146	73·6	...	...	...	66·1	77·4	60·0	18th	85·1	29th	·588	70·2	51·0	19th
June	30·157	76·9	...	...	...	70·5	81·4	64·4	10th	86·1	30th	·692	74·6	58·0	10th
July	30·161	82·2	...	...	...	74·7	85·9	69·8	3rd	90·9	31st	·781	71·2	64·0	3rd
August	30·082	82·6	...	...	...	75·3	87·0	70·4	23rd	93·3	14th	·723	65·4	50·0	24th
September ...	30·043	80·0	...	...	...	72·8	84·4	68·8	8th	88·3	1st	·749	72·6	57·0	1st
October	30·014	77·3	...	...	...	70·1	80·3	61·8	29th	87·7	12th	·665	71·0	50·4	19th
November	29·954	70·9	...	...	...	63·5	73·9	55·2	27th	82·3	3rd	·515	67·8	56·0	17th
December	30·026	64·4	...	...	...	58·3	69·8	47·7	7th	75·3	30th	·462	76·0	51·2	7th
Mean	30·095	72·2	...	...	...	65·2	76·2	58·1	...	82·7	...	·568	69·9	53·5	...

Singapore. Lat. 1° 16′ N.

January	29·320	82·7	...	...	...	70·2	...	67·2	1st	...	...	·877	78·7	70·4	22nd
February	29·321	83·9	...	...	...	70·1	...	67·9	3rd	...	...	·934	80·0	74·8	2nd
March	29·303	85·1	...	...	...	70·7	...	68·3	1st	...	...	·973	80·0	73·8	23rd
April	29·303	85·7	...	...	...	70·8	...	69·0	28th	...	...	1·035	84·2	69·5	23rd
May...	29·300	85·0	...	...	...	71·5	...	68·1	15th	...	...	1·048	87·0	81·8	18th
June	29·297	84·3	...	...	...	70·7	...	68·5	9th	...	...	1·045	89·0	81·8	16th
July...	29·299	84·7	...	...	...	70·3	...	69·0	8th	...	...	1·032	86·5	80·6	13th
August	29·301	84·3	...	...	...	70·0	...	68·0	4th	...	...	1·018	86·8	78·8	7th
September ...	29·312	82·2	...	...	...	69·5	...	68·0	14th	...	...	·968	88·0	80·3	4th
October	29·323	83·2	...	...	...	69·3	...	68·0	16th	...	...	1·001	88·0	81·4	20th
November	29·305	80·8	...	...	...	69·6	...	68·0	30th	...	...	·931	89·0	78·8	15th
December	29·335	78·0	...	...	...	68·9	...	66·2	5th	...	...	·848	88·0	72·4	6th
Mean	29·310	83·3	...	...	...	70·1	...	68·0	...	...	...	·976	85·4	77·0	...

Hong Kong, China. Lat. 22° 16′ N.

January	30·202	56·2	...	...	...	53·2	62·3	39·0	27th	70·7	6th	·380	84·0	66·0	27th
February	30·101	58·9	...	...	...	56·0	64·9	50·6	22nd	76·1	18th	·440	88·3	82·0	12th
March	30·017	62·4	...	...	...	59·2	67·3	54·1	16th	77·7	26th	·508	90·4	64·6	14th
April	29·905	70·8	...	...	...	66·2	76·7	58·9	4th	89·4	27th	·665	88·2	62·5	22nd
May	29·816	77·4	...	...	...	73·0	83·3	68·9	19th	90·5	26th	·847	86·5	60·8	10th
June	29·754	83·9	...	...	...	79·4	89·8	75·6	25th	95·9	26th	·986	85·0	69·6	11th
July...	29·668	82·6	...	...	...	77·9	89·3	75·8	3rd	96·5	28th	·913	82·0	69·0	28th
August	29·702	81·5	...	...	...	77·4	88·4	74·1	26th	95·1	13th	·952	89·0	77·6	2nd
September	29·839	81·4	...	...	...	76·0	88·2	73·5	17th	95·9	8th	·795	74·4	56·1	14th
October	30·012	77·3	...	...	...	71·1	83·2	65·0	11th	88·1	24th	·681	72·6	51·2	12th
November	30·057	69·5	...	...	...	63·9	74·4	57·0	19th	82·9	17th	·545	74·5	52·1	10th
December	30·152	61·8	...	...	...	57·3	67·7	48·8	25th	72·2	16th	·451	84·0	65·3	18th
Mean	29·935	72·0	...	...	...	67·5	77·9	61·8	...	85·9	...	·677	83·0	64·9	...

No. X.—*continued.*

taken at Foreign Stations in the Year 1876.

Long. 64° 47′ W. Height of Barometer Cistern above Sea, 151 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				No. of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
6·0	1·63	0·48	25th	12	...	...	...	...	5·0	13 0	1	6·5	3·5	...	...	1·0	7·0	8·0	3·5	1·5
5·5	2·57	0·80	23rd	14	...	...	...	...	9·0	12·0	2	4·0	2·0	...	3·5	1·0	6·0	5·0	6·5	1·0
6·0	5·59	1·15	29th	17	...	...	1	...	5 0	12 0	4	10·0	5·0	2·0	...	2·0	4·0	2·0	6·0	0·0
6·0	3·34	1·02	18th	10	...	1	3	...	5·0	12·0	1	3·5	3·5	1·0	0·5	0·5	11·0	5·5	4·5	...
5·5	5·03	3·82	30th	14	...	...	...	...	8·0	12·0	...	3·0	4·0	3·0	2·0	2·0	12·0	3·0	2·0	...
6·0	7·59	2·12	7th	15	...	...	2	...	6·0	11·0	...	1·0	2·0	3·0	5·5	6·0	8·5	3·5	0·5	...
5·1	3·41	1·31	16th	13	...	...	1	...	10·0	7·0	...	3·0	1·5	0·5	2·5	3·0	12·0	6·5	1·5	0·5
5·0	0·58	0·28	5th	9	...	...	1	...	9·5	9·0	...	3·5	8·5	0·5	3·0	1·5	4·0	7·0	2·5	0·5
5·9	7·58	3·05	3rd	18	...	...	4	...	6·0	10·0	1	1·5	0·5	1·5	3·0	2·0	11·0	6·5	3·5	0·5
5·0	5·93	2·35	1st	13	...	...	1	...	7·5	9·5	3	3·0	3·0	1·0	2·0	3·0	9·0	6·0	2·0	2·0
5·9	4·20	1·10	25th	14	...	...	...	...	7·0	12·5	2	3·0	5·0	2·0	3·5	0·5	3·5	5·0	7·5	...
7·0	7·26	1·33	25th	23	...	...	1	...	...	18·5	2	4·0	4·0	...	1·0	3·0	4·0	8·0	5·0	2·0
5·7	55·7	3·82	30th May	172	...	1	14	...	78·0	138·5	16	46·0	42·5	14·5	26·5	25·5	92·0	66·0	45·0	8·0

Long. 105° 31′ E. Height of Barometer Cistern above Sea, 116 feet.

4·0	4·18	0·95	12th	12	...	...	3	...	14·0	2·0	...	...	31	...	...	...	...	...	...	...
3·3	1·90	1·32	29th	5	...	...	1	...	17·0	...	...	...	29	...	...	...	...	...	...	...
3·8	4·30	1·25	3rd	14	...	...	9	...	15·0	1·0	...	...	31	...	...	...	...	...	...	...
3·8	7·62	1·05	28th	24	...	...	8	...	12 5	0·5	...	...	...	...	...	...	30	...	...	...
3·9	5·05	1·08	27th	16	...	...	10	...	12·5	0·5	...	...	...	...	...	...	31	...	...	...
4·0	7·41	1·10	22nd	24	...	...	6	...	11·5	1 0	...	...	...	...	...	...	30	...	...	...
3·5	1·94	0·30	2nd	12	...	...	4	...	17 5	...	...	...	...	...	...	...	31	...	...	...
3·8	6·80	1·35	30th	13	...	...	6	...	13·5	0·5	...	...	...	...	...	...	31	...	...	...
4·1	9·84	1·11	15th	16	...	...	8	...	10·0	0·5	...	...	...	...	...	...	30	...	...	...
4·1	9 43	0·96	21st	22	...	...	7	...	10·5	0·5	...	...	31	...	...	...	...	...	...	...
4·0	10·13	2·43	14th	21	...	...	8	...	12·0	...	...	...	30	...	...	...	...	...	...	...
4·7	9·68	1·45	5th	27	...	...	6	...	5·5	0·5	...	...	31	...	...	...	...	...	...	...
3·9	78 28	2·43	14th Nov.	206	...	...	76	...	151·5	7·0	...	...	183 *	...	...	...	183 *	...	...	...

Long. 114° 9′ E. Height of Barometer Cistern above Sea, 43 feet.

5·8	1·20	0·98	24th	...	...	...	...	3	11·0	16·0	...	4·0	6·5	13·5	0·5	0·5	1·5	1·5	2·0	0·5
8·2	0·23	0·10	17th	5	...	...	...	3	4·5	24·0	...	1·0	1·5	19·0	3·5	...	1·0	3·0	...	...
9·4	11·07	2·76	24th	22	...	...	6	2	1·0	30·0	...	1·0	4·0	22·0	2·0	...	0·5	1·0	...	0·5
7·3	5·32	1·36	6th	11	...	...	3	...	8·5	20·5	...	...	5·0	19·5	3·0	...	1·0	1·5	...	...
6·6	11·02	3·25	15th	16	...	...	2	2	8·0	17·0	...	...	2·0	16·0	7·5	...	2·5	...	1·5	1·5
8·2	7·23	2·44	26th	17	...	...	...	...	0·5	22·5	...	...	0·5	2·5	3·0	6·5	16·5	0·5	...	0·5
8·5	22·51	5·00	19th	22	...	...	3	...	...	23·0	1	...	...	2·5	10·0	5·5	9·0	...	...	4·0
8·0	34·35	5·80	5th	23	...	...	...	...	0·5	20·0	2	...	1·5	5·5	6·0	2·5	12·5	0·5	1·5	1·0
6·0	6·00	1·50	25th	11	...	...	2	2	8·5	11·5	1	...	7·5	15·5	1·5	...	3·0	0·5	0·5	1·5
4·5	1·17	0·41	24th	5	...	...	...	...	14·5	6·0	...	0·5	6·5	18·0	0·5	0·5	3·0	...	1·0	1·0
4·8	1·34	0·76	19th	5	...	...	...	...	13·5	10·5	...	1·0	13·5	11·0	...	...	1·0	0·5	2·0	1·0
3·8	4·08	1·35	1st	5	...	...	...	...	20·5	9·0	1	3·0	8·5	11·0	0·5	...	1·0	1·5	3·0	2·5
6·7	105·5	5·80	5th Aug.	145	...	...	16	12	91·0	210·0	5	11·0	57·0	156·0	38·0	15·5	52·5	10·5	11·5	14·0

No daily record of observations kept; six months entered as N.E., and six months as S.W. Monsoon.

Appendix

Summary of Results of Meteorological Observations

	Stations, with their Height above the Sea.		Mean Pressure.	Air Temperature.						Tension of Vapour.	Relative Humidity		
				Hourly Means.	Means of		Abs. Min.		Abs. Max.			Min.	
				9 a.m.	Min.	Max.	Temp.	Day.	Temp.	Day.	Mean.		Day.
		ft.											
Mediterranean.	Gibraltar	53	30·039	65·3	59·9	73·3	40·0	9 Jan.	95·0	25 July	·495	77·0	36·0	5 Jan
	Malta	70	29·992	68·5	62·5	72·0	44·2	21 Mar.	91·0	12 Sept.	·558	77·7	48·2	14 Mar
	Scutari	60	29·947	59·2	49·9	68·5	23·0	1 Jan.	98·0	15 Sept.	·402	75·7	45·6	28 Jun
African.	Natal (Fort Napier)...	2,200	29·947	66·5	53·6	78·9	34·6	30 June	106·2	14 Dec.	·408	61·3	23·0	5 Oct
	Sierra Leone... ...	224	29·938	81·8	70·5	89·4	63·0	3 Nov.	98·0	10 Feb.	·863	79·6	55·0	15 Feb
America & W. Indian.	Barbadoes	30	30·031	81·9	73·8	85·9	64·0	16 Jan.	93·0	11 Sept.	·742	67·9	46·0	25 Mar
	Newcastle, Jamaica...	3,800	30·085	69·4	58·9	78·1	51·0	3 Dec.	87·0	30 Sept.	·534	74·1	45·0	11 Jan
	Up-Park Camp, Jamaica... ...	235	29·981	84·7	61·1	...	50·0	2 Dec.	...	...	·699	59·4	43·0	9 Jan
	Nassau, Bahamas ...	44	30·108	78·5	70·2	83·7	53·5	1 Dec.	94·6	17 July	·685	69·3	49·0	6 Apr
	Bermuda	151	30·095	72·2	65·2	76·2	45·1	5 Mar.	93·3	14 Aug.	·568	69·9	47·6	22 Jan
	Singapore	110	29·310	83·3	70·1	...	66·2	5 Dec.	...	...	·976	85·4	69·5	23 Apr
	Hong Kong	43	29·935	72·0	67·5	77·9	39·0	27 Jan.	96·5	28 July	·677	83·0	51·2	12 Oct

o. X.—*continued.*

ken at Foreign Stations in the year 1876.

Rainfall.			Weather.								Wind.										
			No. of days of								No. of Observations under each point.										
Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.	Latitude.	Longitude.
																				o /	o /
31·62	2·60	8 Nov.	80	...	1	3	4·5	194·5	85·5	14	10·0	15·5	130·0	9·5	9·5	23·5	118·0	49·5	0·5	36 6 N.	5 20W.
11·23	1·44	16 Oct.	51	...	...	1	...	100·5	106·5	...	9·0	62·5	5·0	70·5	4·0	44·0	12·5	158·5	...	35 53 N.	14 30 E:
30·18	3·10	5 July	122	11	1	22	1·0	134·0	137·5	5	49·0	120·5	36·0	11·0	50·0	60·0	14·5	6·0	14·5*	41 00 N.	29 3 E.
28·93	2·90	26 Oct.	93	...	1	62	...	163·0	180·5	3	9·5	47·5	199·5	56·5	14·0	1·5	4·5	23·0	10·0	29 3 S.	30 2 E.
17·92	4·15	12 July	167	...	...	53	...	29·5	88·0	13	120·0	19·0	50·5	1·5	·5	1·5	144·0	2·0	27·0	8 29 N.	13 9 W.
50·61	3·50	24 Sept.	119	...	...	7	...	25·5	90·5	4	·5	288·5	31·0	45·5	...	0·5	...	...	...	13 4 N.	59 40 W.
124·12	5·80	15 Oct.	178	...	...	21	...	141·0	84·0	15	2·0	22·5	38·0	71·0	28·5	9·0	7·0	25·0	163·0	18 62 N.	76 42 W.
60·63	5·91	14 Oct.	111	...	...	14	...	206·5	8·5	3	7·5	64·0	48·0	169·5	2·5	1·0	·5	...	†	17 59 N.	76 56 W.
75·45	5·20	28 May	110	...	...	19	4·0	34·0	156·0	3	26·0	157·0	33·0	86·5	7·5	12·0	11·5	29·0	3·5	25 5 N.	77 21 W.
55·7	3·82	30 May	172	...	1	14	...	78·0	138·5	16	46·0	42·5	14·5	26·5	25·5	92·0	66·0	45·0	8·0	32 17 N.	64 47 W.
78·28	2·43	14 Nov.	206	...	...	76	...	151·5	7·0	...	...	183·0	...	...	...	183·0	...	...	‡	1 16 N.	10531 E.
105·5	5·80	5 Aug.	145	...	...	16	12·0	91·0	210·0	5	11·0	57·0	156·0	38·0	15·5	52·5	10·5	11·5	14·0	22 16 N	114 9 E.

* Scutari. Observations on Wind 4½ days short.
† Up-Park Camp. Observations incomplete, *see* Abstract.
‡ Singapore. Observations on Wind not daily recorded, 6 months returned as N.E., and 6 months as S.W. Monsoon.

APPENDIX No. XI.

THE ALEXANDER MEMORIAL FUND.

Committee.

Sir William M. Muir, K.C.B., M.D., Hon. Physician to the Queen, Director-General, *President.*

Sir T. Galbraith Logan, K.C.B., M.D., Hon. Physician to the Queen.

Surgeon-General T. G. Balfour, M.D., F.R.S.

Surgeon-General T. Longmore, C.B., Hon. Surgeon to the Queen, Professor of Military Surgery.

Deputy Surgeon-General J. A. Bostock, C.B., M.D., Hon. Surgeon to the Queen

Deputy Surgeon-General W. J. Fyffe, M.D.

Surgeon-Major F. S. B. F. De Chaumont, Professor of Military Hygiene.

R. Lawson, Esq., M.D., Inspector-General of Hospitals.

Surgeon-General W. Rutherford, C.B., M.D.

Surgeon-General W. Munro, C.B., M.D.

Deputy Surgeon-General Sir Anthony D. Home, K.C.B., *V.C.*

Surgeon-Major Frederick Robinson, M.D., Scots Guards.

At a meeting of the Committee, held on the 8th of April, 1876, at the Office of the Army Medical Department, 6, Whitehall Yard, it was determined that the Alexander Memorial Prize of 50*l.*, and a Gold Medal of the value of 10*l.*, be offered for the best Essay—

"On the influence of drinking-water in originating or propagating enteric "fever, diarrhœa, dysentery, *and** cholera: to be illustrated, as far as possible "by instances which have come under the personal observation of the author."

The Essay to be legibly and clearly written, superscribed with a brief motto, and accompanied by a sealed envelope similarly superscribed, containing the name and address of the author.

Essays to be despatched to the President, Alexander Memorial Fund Committee, on or before the 31st December, 1878.

The competition to be limited to Executive Medical Officers of the Army on full-pay.

The relative merits of the Essays to be determined by Assessors selected by the Committee.

The Prize to be awarded to the writer of the best Essay offered, without reference to the number of competitors, provided the writer has complied with the prescribed conditions.

---

* Not *or* cholera, as was previously announced.

2

GENERAL ANNUAL RETURN

OF

THE BRITISH ARMY

FOR THE YEAR

1876,

WITH ABSTRACTS FOR
THE YEARS 1861 TO 1876 INCLUSIVE.

PREPARED BY ORDER OF

HIS ROYAL HIGHNESS
THE FIELD MARSHAL COMMANDING-IN-CHIEF

FOR THE INFORMATION OF

THE SECRETARY OF STATE FOR WAR.

HORSE GUARDS, WAR OFFICE, 1877.

Presented to both Houses of Parliament by Command of Her Majesty.



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Months.	ALL RANKS.										
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
1st January 1876 -	1,286	16,298	5,337	28,341	5,665	5,540	114,974	2,231	3,005	1,272	183,949
1st February „ -	1,288	16,416	5,303	28,458	5,692	5,545	115,363	2,193	3,001	1,259	184,518
1st March „ -	1,288	16,397	5,[illegible]2	28,512	5,676	5,539	115,063	2,173	2,999	1,284	184,243
1st April „ -	1,289	16,360	5,335	28,534	5,661	5,535	114,602	2,153	3,008	1,263	183,740
1st May „ -	1,289	16,352	5,310	28,466	5,672	5,480	114,436	2,137	3,002	1,256	183,400
1st June „ -	1,284	16,298	5,255	28,379	5,655	5,466	114,446	2,137	2,996	1,263	183,179
1st July „ -	1,287	16,285	5,283	28,499	5,630	5,513	114,372	2,129	2,985	1,257	183,240
1st August „ -	1,282	16,298	5,298	28,721	5,637	5,564	114,512	2,145	2,997	1,245	183,699
1st September „ -	1,285	16,314	5,290	28,920	5,674	5,618	114,897	2,141	2,987	1,233	184,359
1st October „ -	1,281	16,345	5,283	28,995	5,665	5,672	115,295	2,144	3,004	1,346	185,030
1st November „ -	1,282	16,374	5,360	28,960	5,640	5,713	115,827	2,171	2,988	1,458	185,773
1st December „ -	1,279	16,515	5,429	29,228	5,663	5,750	117,554	2,183	3,009	1,449	188,059
	15,420	196,252	63,795	344,013	67,930	66,935	1,381,341	25,937	35,981	15,585	2,213,189
Average during 1876	1,285	16,354	5,316	28,668	5,661	5,578	115,112	2,161	2,999	1,299	184,433
	17,639		33,984			127,149					

TABLE 2.—EFFECTIVE STRENGTH of the Regular Army, *by Ranks*, on the first day of each month during the year 1876, and the average strength during the year.

Months.	All Arms.				
	Officers.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	All Ranks.
1st January 1876	8,093	12,578	3,638	159,640	183,949
1st February „	8,163	12,629	3,632	160,094	184,518
1st March „	8,145	12,620	3,638	159,840	184,243
1st April „	8,174	12,574	3,635	159,357	183,740
1st May „	8,163	12,556	3,647	159,034	183,400
1st June „	8,135	12,538	3,629	158,877	183,179
1st July „	8,112	12,506	3,606	159,016	183,240
1st August „	8,083	12,486	3,617	159,513	183,699
1st September „	8,122	12,458	3,607	160,172	184,359
1st October „	8,189	12,491	3,633	160,717	185,030
1st November „	8,151	12,535	3,624	161,463	185,773
1st December „	8,160	12,560	3,618	163,721	188,059
	97,690	150,531	43,524	1,921,444	2,213,189
Average during 1876 - -	8,141	12,544	3,627	160,121	184,433
			176,292		

TABLE 3.—AVERAGE STRENGTH of the Army in England, Scotland, Ireland, and Abroad, during 1876, distinguishing the number of Officers and Men, and the different arms of the service.

	Cavalry.		Royal Artillery.		Royal Engineers.		Infantry, &c., &c.		All Arms.		Total.
	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	
England and Wales -	412	8,378	602	14,792	348	3,151	1,794	40,880	3,156	67,201	70,357
Scotland - - -	26	573	17	304	11	128	159	2,819	213	3,824	4,037
Ireland - - -	187	3,828	95	2,227	35	273	679	15,428	996	21,756	22,752
Total at Home - -	625	12,779	714	17,323	394	3,552	2,632	59,127	4,365	92,781	97,146
Abroad - -	235	4,000	724	15,223	426	1,289	2,391	62,999	3,776	83,511	87,287
General Average during 1876 -	860	16,779	1,438	32,546	820	4,841	5,023	122,126	8,141	176,292	184,433
	17,639		33,984		5,661		127,149		184,433		

N.B.—Regiments on passage out and home are included with the number "ABROAD."

TABLE 4.—DISTRIBUTION of the Army, according to the latest returns received on the 1st January 1877, showing the Effectives and Establishment of each Arm.

	OFFICERS AND MEN.										
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	West India and Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
AT HOME:—											
England	1,288	7,123	1,976	13,333	3,668	5,853	35,824	—	2,324	883	72,272
Jersey	—	—	—	172	4	—	835	—	1	10	1,022
Guernsey and Alderney	—	—	—	278	—	—	579	—	—	6	863
Scotland	—	550	—	313	102	—	2,784	—	13	46	3,808
Ireland	—	4,081	622	1,764	249	—	14,546	—	512	252	22,026
Total	1,288	11,754	2,598	15,860	4,023	5,853	54,568	—	2,850	1,197	99,991
ON PASSAGE TO CEYLON	—	—	—	213	—	—	—	—	—	—	213
ON PASSAGE TO CHINA, &c.	—	—	—	202	—	—	—	—	—	—	202
ON PASSAGE FROM MALTA TO STRAITS SETTLEMENTS	—	—	—	—	—	—	867	—	—	—	867
ON PASSAGE TO INDIA	—	490	289	—	—	—	—	—	—	—	779
ON PASSAGE HOME FROM INDIA	—	374	288	—	—	—	629	—	—	—	1,291
IN THE COLONIES (including Drafts on passage out)	—	—	—	3,723	1,329	—	17,443	2,185	151	248	25,079
EAST INDIES (including Drafts on passage out):—											
Bengal	—	2,922	1,663	4,976	226	—	29,468	—	—	—	39,255
Bombay	—	500	280	2,375	62	—	7,494	—	—	—	10,711
Madras	—	507	373	2,454	58	—	8,235	—	—	—	11,627
Total	—	3,929	2,316	9,805	346	—	45,197	—	—	—	61,593
Total Effectives	1,288	16,547	5,491	29,803	5,698	5,853	118,704	2,185	3,001	1,445	190,015
Total Establishment	1,302	15,984	5,408	29,516	5,709	5,950	121,043	2,481	3,014	1,574	191,981

TABLE 5.—EFFECTIVE STRENGTH and ESTABLISHMENT of each arm of the service, in Rank and File, on the 1st January 1877, and the number supernumerary or required to complete the Establishment.

Corps.	Effectives.	Establishment.	Wanting to complete.	Supernumeraries.
Household Cavalry - -	1,018	1,029	11	—
Cavalry of the Line - -	14,199	13,597	—	602
Royal Horse Artillery - -	4,854	4,781	—	73
Royal Artillery - - -	26,232	25,892	—	340
Royal Engineers - -	4,181	4,162	—	19
Foot Guards - - -	5,155	5,250	95	—
Infantry of the Line - -	104,467	105,540	1,073	—
Colonial Corps - - -	1,872	2,146	274	—
Army Service Corps - -	2,501	2,506	5	—
Army Hospital Corps - -	1,160	1,288	128	—
General Total - -	165,639	166,191	1,586 552	1,034

TABLE 6.—DISTRIBUTION of the Regiments and Depôts of Cavalry and Infantry, Batteries of Artillery, Companies of Engineers, &c., &c., on the 1st January 1877.

	Household Cavalry.	Cavalry of the Line.		Royal Horse Artillery.	Royal Artillery.			Royal Engineers.		Foot Guards.	Infantry of the Line.			West India and Colonial Corps.	Army Service Corps.
	Regiments.	Regiments.	Depôts.	Batteries.	Field Batteries.	Garrison Batteries.	Depôt Batteries.	Troops.	Companies.	Battalions.	Battalions.	Brigade Depôts.	Regtl. Depôts.	Corps.	Companies.
AT HOME:—															
England	3	10	10	11	34	25	10	3	23	7	39	28	23	—	18
Jersey	—	—	—	—	—	1	—	—	—	—	1	—	1	—	—
Guernsey and Alderney	—	—	—	—	—	2	—	—	—	—	1	—	—	—	—
Scotland	—	1	—	—	1	—	—	—	1	—	3	8	—	—	—
Ireland	—	7	—	4	7	3	—	—	3	—	21	4	8	—	4
Total	3	18	10	15	42	31	10	3	27	7	65	40	32	—	22
ON PASSAGE TO CEYLON	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
ON PASSAGE TO CHINA, &c.	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
ON PASSAGE FROM MALTA TO STRAITS SETTLEMENTS	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
ON PASSAGE TO INDIA	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—
ON PASSAGE FROM INDIA	—	1	—	2	—	—	—	—	—	—	1	—	—	—	—
IN THE COLONIES:—															
Gibraltar	—	—	—	—	—	7	—	—	4	—	5	—	—	—	1
Malta	—	—	—	—	—	7	—	—	2	—	5	—	—	1	
West Africa Settlements	—	—	—	—	—	—	—	—	—	—	—	—	—	(6 Comps.)	
Cape of Good Hope	—	—	—	—	—	1	—	—	1	—	—	—	—	—	
St. Helena	—	—	—	—	—	1	—	—	—	—	4	—	—	—	
Mauritius	—	—	—	—	—	1	—	—	—	—		—	—	—	
Ceylon and Labuan	—	—	—	—	—	2	—	—	—	—	1	—	—	1	
China and Straits Settlements	—	—	—	—	—	3	—	—	—	—	3	—	—	1	
Dominion of Canada	—	—	—	—	—	3	—	—	1	—	2	—	—	—	
Bermuda	—	—	—	—	—	2	—	—	4	—	2	—	—	—	
West Indies	—	—	—	—	—	2	—	—	—	—	1	—	—	1 & 3 Comps.	
Fiji Islands	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
Total	—	—	—	—	—	29	—	—	13	—	23	—	—	5	1
EAST INDIES:—															
Bengal	—	6	—	9	22	14	—	—	1	—	33	—	—	—	—
Bombay	—	1	—	2	10	6	—	—	1	—	9	—	—	—	—
Madras	—	1	—	2	11	7	—	—	1	—	9	—	—	—	—
Total	—	8	—	13	43	27	—	—	3	—	51	—	—	—	—
General Total	3	28	10	32	85	91	10	3	43	7	141	40	32	5	23
					186										

Year.	Officers.					Non-Commissioned Officers and Men.					General Total.
	England and Wales.	Scotland.	Ireland.	Abroad.	Total.	England and Wales.	Scotland.	Ireland.	Abroad.	Total.	
1861	3,095	191	1,029	4,994	9,309	65,358	4,116	23,996	118,825	212,295	221,604
1862	3,090	186	998	5,847	10,121	60,691	3,638	21,069	127,320	212,718	222,839
1863	3,062	197	1,095	6,455	10,809	57,004	3,602	20,302	127,889	208,797	219,606
1864	3,052	195	1,079	6,475	10,801	54,783	3,491	20,121	125,662	204,057	214,858
1865	3,198	185	1,074	6,372	10,829	56,584	3,444	20,017	118,003	198,048	208,877
1866	3,021	180	1,269	6,252	10,722	53,456	3,229	22,969	111,265	190,919	201,641
1867	3,094	173	1,209	6,078	10,554	57,250	3,344	22,537	106,650	189,781	200,335
1868	3,345	214	1,095	5,738	10,392	60,595	3,922	20,462	101,529	186,508	196,900
1869	3,422	181	1,133	5,473	10,209	58,089	3,108	20,345	94,917	176,459	186,668
1870	3,352	192	1,278	4,805	9,627	58,024	3,278	23,546	85,969	170,817	180,444
1871	3,495	169	1,216	4,314	9,194	71,147	3,293	26,437	82,594	183,471	192,665
1872	3,480	171	1,197	4,144	8,992	69,994	3,298	26,014	83,709	183,015	192,007
1873	3,487	207	1,121	3,877	8,692	67,637	3,741	24,390	83,919	179,687	188,379
1874	3,317	208	996	3,763	8,284	67,577	4,000	21,537	84,991	178,105	186,389
1875	3,171	218	1,002	3,691	8,082	66,308	3,955	22,539	83,785	176,587	184,669
1876	3,156	213	996	3,776	8,141	67,201	3,824	21,756	83,511	176,292	184,433

N.B.—Regiments on passage out and home are included with the numbers "Abroad."

TABLE 8.—EFFECTIVE STRENGTH, according to the latest returns received, on the 1st January in each year from 1861 to 1877, showing the number of each arm.

Years.	ALL RANKS.													
	House-hold Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engi-neers.	Military Train.	Foot Gds.	Infantry of the Line.	Colonial Corps.	Army Hospital Corps.	Commt. Staff Corps.	Military Store Staff Corps.	Army Service Corps.	All Arms.
1861	1,298	18,012	2,591	24,257	4,364	2,406	6,158	158,343	8,677	1,062	—	—	—	227,168
1862	1,312	16,688	2,361	26,972	4,662	2,014	6,269	146,006	8,274	875	439	—	—	215,872
1863	1,305	17,989	5,431	31,240	4,680	1,930	6,273	144,083	8,472	849	529	—	—	222,781
1864	1,306	17,806	5,742	30,579	5,108	1,840	6,201	138,351	8,447	865	546	—	—	216,791
1865	1,306	16,995	5,608	29,126	5,074	1,832	6,070	138,359	8,139	891	568	—	—	213,968
1866	1,299	16,714	5,350	27,631	4,935	1,815	5,788	133,241	7,065	932	586	—	—	205,356
1867	1,314	16,438	5,495	27,305	5,065	1,814	5,908	128,103	7,103	970	575	197	—	200,287
1868	1,323	16,356	5,452	27,991	4,985	1,812	5,883	127,252	7,113	979	575	294	—	200,015
1869	1,306	16,245	5,578	27,503	5,026	1,783	5,939	123,515	6,764	980	572	395	—	195,606
1870	1,310	15,600	5,340	25,864	4,995	1,442	5,929	116,406	5,578	899	563	388	—	184,314
1871	1,313	15,743	5,483	25,758	5,381		6,304	120,877	3,457	838	—	—	2,592	187,746
1872	1,290	16,414	5,726	27,701	5,502	—	6,521	122,875	3,452	760	—	—	2,431	192,672
1873	1,296	16,377	5,590	28,891	5,602	—	6,298	120,367	3,329	687	—	—	2,978	191,415
1874	1,280	16,092	5,709	28,294	5,649	—	5,822	117,441	2,352	1,046	—	—	2,950	186,635
1875	1,283	16,060	5,681	28,777	5,627	—	5,633	116,727	2,376	1,280	—	—	2,988	186,432
1876	1,286	16,298	5,337	28,341	5,665	—	5,540	114,974	2,231	1,272	—	—	3,005	183,949
1877	1,288	16,547	5,491	29,803	5,698	—	5,853	118,704	2,185	1,445	—	—	3,001	190,015

TABLE 9.—EFFECTIVE STRENGTH on the 1st January in each year from 1861 to 1877, showing the different ranks.

Years.	Officers.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	All Ranks.
1861	9,246	12,792	4,115	201,015	227,168
1862	9,306	12,444	4,154	189,968	215,872
1863	10,551	13,708	4,500	194,022	222,781
1864	10,777	13,425	4,564	188,025	216,791
1865	10,797	13,432	4,592	185,147	213,968
1866	10,807	13,282	4,536	176,731	205,356
1867	10,619	13,146	4,443	172,079	200,287
1868	10,463	13,142	4,396	172,014	200,015
1869	10,308	13,135	4,412	167,751	195,606
1870	10,116	12,820	4,361	157,017	184,314
1871	9,426	12,456	4,070	161,794	187,746
1872	9,052	12,632	4,003	166,985	192,672
1873	8,847	12,531	3,770	166,267	191,415
1874	*8,298	12,567	3,691	162,079	186,635
1875	8,156	12,485	3,643	162,148	186,432
1876	8,093	12,578	3,638	159,640	183,949
1877	8,140	12,618	3,618	165,639	190,015

* Medical Officers were struck off the effective strength of regiments on 1st November 1873.

TABLE 10.—EFFECTIVES, ESTABLISHMENTS, and number wanting to complete or supernumerary, in Rank and File, on the 1st January in each year from 1861 to 1877.

Years.	Effectives.	Establishments.	Wanting to complete.	Supernumerary.
1861	201,015	202,040	1,025	—
1862	189,968	194,271	4,303	—
1863	194,022	197,089	3,067	—
1864	188,025	192,153	4,128	—
1865	185,147	190,062	4,915	—
1866	176,731	182,468	5,737	—
1867	172,079	173,995	1,916	—
1868	172,014	172,633	619	—
1869	167,751	171,029	3,278	—
1870	157,017	161,150	4,133	—
1871	161,794	171,074	9,280	—
1872	166,985	170,029	3,044	—
1873	166,267	169,395	3,128	—
1874	162,079	161,031	—	1,048
1875	162,148	160,929	—	1,219
1876	159,640	160,537	897	—
1877	165,639	166,191	552	—

TABLE 11.—INCREASE and DECREASE of the Non-Commissioned Officers and Men of each arm of the service reported during the year 1876.

—	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
Effectives on 1st January 1876 -	1,207	15,509	5,102	27,183	4,844	5,299	110,357	2,106	2,998	1,251	175,856
Increase—											
Recruits joined { Long Service	158	645	267	1,900	37	288	1,847	178	165	16	5,501
Recruits joined { Short Service	—	2,100	222	3,525	602	1,005	16,222	14	177	2	23,869
	158	2,745	489	5,425	639	1,293	18,069	192	342	18	29,370
Joined from desertion - -	6	292	47	388	36	65	1,187	19	18	5	2,063
From Army Reserve - -	—	—	—	—	—	—	21	—	—	—	21
*Other causes - -	2	—	276	84	17	6	—	6	14	314	719
Total Increase -	166	3,037	812	5,897	692	1,364	19,277	217	374	337	32,173
Decrease—											
Dead - - - -	4	131	72	383	29	54	1,247	35	26	17	1,998
Discharged - - -	126	1,723	338	2,572	513	789	9,558	204	267	119	16,209
Deserted - - - - -	31	700	128	1,062	78	123	2,673	23	48	12	4,878
To Army Reserve - -	—	—	—	—	—	34	635	—	33	10	712
Given up as deserters - -	4	123	11	85	9	23	404	—	3	1	663
*Other causes - - -	1	104	106	404	27	23	1,017	3	2	7	1,694
Total Decrease -	166	2,781	655	4,506	656	1,046	15,534	265	379	166	26,154
Effectives on 1st January 1877 -	1,207	15,765	5,259	28,574	4,880	5,617	114,100	2,058	2,993	1,422	181,875

* Principally interchanges between the different arms of the service.

N.B.—The figures in this table represent the Increase and Decrease of the Army as *reported in the returns received month by month* during 1876, and do not in every case correspond with the *actual number of Recruits and Casualties during the year* as shown in Tables 13, 14, 17, and 18.

TABLE 12.—INCREASE and DECREASE of the Army reported during each month of the year 1876.

	Non-Commissioned Officers and Men—All Arms.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total during the year.
Effectives on the 1st of the month	175,856	176,355	176,098	175,566	175,237	175,044	175,128	175,616	176,237	176,841	177,622	179,899	181,875 (On 1st Jan. 1877.)
Increase—													
Recruits joined { Long Service	521	409	416	307	352	456	449	462	465	489	596	579	5,501
Recruits joined { Short Service	1,548	1,265	1,262	1,153	1,521	1,839	2,017	2,330	2,012	2,305	3,439	3,178	23,869
	2,069	1,674	1,678	1,460	1,873	2,295	2,466	2,792	2,477	2,794	4,035	3,757	29,370
Joined from desertion	137	164	154	135	162	167	178	199	195	201	194	177	2,063
From Army Reserve	1	4	1	1	—	1	1	—	1	4	6	1	21
*Other causes	47	66	11	25	46	45	13	1	129	220	86	30	719
Total Increase	2,254	1,908	1,844	1,621	2,081	2,508	2,658	2,992	2,802	3,219	4,321	3,965	32,173
Decrease—													
Dead	151	156	149	150	160	196	132	159	171	205	146	223	1,998
Discharged	1,064	1,426	1,618	1,321	1,582	1,659	1,488	1,467	1,177	1,277	1,162	968	16,209
Deserted	381	374	428	317	350	381	387	534	465	427	406	428	4,878
To Army Reserve	17	22	10	28	10	12	22	56	114	130	137	154	712
Given up as deserters	42	40	46	50	47	50	61	74	61	85	56	51	663
*Other causes	100	147	125	84	125	126	80	81	210	314	137	165	1,694
Total Decrease	1,755	2,165	2,376	1,950	2,274	2,424	2,170	2,371	2,198	2,438	2,044	1,989	26,154
Nett Increase	499	—	—	—	—	84	488	621	604	781	2,277	1,976	6,019
Nett Decrease	—	257	532	329	193	—	—	—	—	—	—	—	—

* Principally interchanges between the different arms of the service.

N.B.—See note at page 10.

TABLE 13.—RECRUITS enlisted and passed into the service, casualties between enlistment and final approval, and nett result of recruiting in the UNITED KINGDOM during the year 1876; also the agencies by which the men were raised, the number obtained during each month in England, Scotland, and Ireland, respectively, and the total number obtained during the year in each District or Sub-District, for the Brigade and for the Army generally.

Months.	Enlisted.	After Enlistment.				Attested.	After Attestation.			Passed into the Service.	Recruiting Agencies.													Where raised.			
		Primarily Rejected.	Absconded.	Paid Smart.	Other Causes.		Rejected.	Deserted.	Other Causes.		At Head Quarters of Regmts.	Infantry Sub-Districts.					Artillery Sub-Districts.	Cavalry Districts.	London and Dublin Recruiting Districts.					Passed into the Service.	In England.	In Scotland.	In Ireland.	Passed into the Service.
												Brigade Depots.	Staff of Reserve Forces.	Pensioners.	Line Parties.	Total.			District Staff.	Staff of Reserve Forces.	Pensioners.	Line Parties.	Total.					
January -	3,153	517	68	315	17	2,236	92	32	15	2,097	477	467	260	309	85	1,121	82	—	109	—	90	218	417	2,097	1,632	155	310	2,097
February	2,577	493	68	265	4	1,747	83	29	13	1,622	410	349	176	280	33	838	44	—	83	—	70	177	330	1,622	1,315	89	218	1,622
March -	2,490	436	65	209	13	1,767	52	45	9	1,661	441	375	167	280	34	856	43	—	88	5	73	155	321	1,661	1,325	102	234	1,661
April -	2,247	462	47	200	9	1,529	56	34	11	1,428	344	317	252	228	20	817	23	1	56	6	55	126	243	1,428	1,129	144	155	1,428
May -	2,803	504	57	248	11	1,983	63	22	11	1,887	340	482	364	300	53	1,199	41	—	79	—	84	144	307	1,887	1,526	177	184	1,887
June -	3,592	659	82	348	32	2,471	98	39	13	2,321	483	581	319	484	53	1,387	102	—	96	1	98	154	349	2,321	1,927	161	233	2,321
July -	3,631	654	87	303	14	2,573	82	45	6	2,440	656	459	254	447	45	1,205	106	—	121	6	112	234	473	2,440	1,883	228	329	2,440
August -	4,237	815	103	392	12	2,915	105	64	12	2,734	632	605	340	518	71	1,534	75	—	113	2	122	256	493	2,734	2,015	300	419	2,734
September	3,988	769	112	368	14	2,725	91	43	12	2,579	583	562	295	477	70	1,404	64	—	125	5	144	254	528	2,579	2,055	188	336	2,579
October -	4,236	784	138	381	18	2,915	109	57	15	2,734	554	617	401	489	67	1,574	80	—	123	4	140	259	526	2,734	2,226	192	316	2,734
November	6,108	1,139	130	606	34	4,199	155	75	19	3,950	673	970	782	732	94	2,578	133	—	136	11	137	282	566	3,950	3,169	296	485	3,950
December	5,651	1,085	107	508	26	3,925	164	77	21	3,663	681	771	816	675	123	2,385	127	—	111	3	126	230	470	3,663	3,026	235	402	3,663
General Total -	44,713	8,317	1,064	4,143	204	30,985	1,150	562	157	29,116	6,274	6,505	4,426	5,219	748	16,898	920	1	1,240	43	1,251	2,489	5,023	29,116	23,228	2,267	3,621	29,116

N.B.—These numbers are exclusive of Recruits enlisted for the Colonial Corps and others *raised abroad.*

TABLE 13 (*continued*)—RECRUITS raised in Recruiting Districts and Sub-Districts during 1876.

District or Sub-District and Station.	Passed into the Service. Total for the Army.	Passed into the Service. For the Brigade and included in foregoing column.
1. Newcastle-on-Tyne.	246	132
2. Carlisle	80	27
3. Sunderland	627	159
4. Richmond (Yorks).	115	94
5. Beverley	200	70
6. York	273	155
7. Doncaster	240	178
8. Doncaster	135	70
9. Halifax	191	5
10. Bradford, Yorks	279	207
11. Preston	90	51
12. Preston	519	238
13. Liverpool	516	160
14. Liverpool	255	94
15. Burnley	400	289
16. Ashton-under-Lyne.	640	230
17. Bury (Lancash.)	521	166
18. Chester	194	117
19. Lichfield	559	294
20. Lichfield	535	196
21. Shrewsbury	171	117
22. Worcester	227	133
23. Wrexham	88	71
24. Cardiff	252	156
25. Brecon	247	183
26. Derby	295	185
27. Leicester	692	361
28. Warwick	406	269
29. Northampton	253	202
30. Lincoln	133	56
31. Great Yarmouth	213	168
32. Bury St. Edmunds.	242	122
33. Bedford	189	91
34. Exeter	163	126
35. Devonport	75	57
36. Taunton	205	177
37. Bristol	509	326
38. Devizes	171	101
39. Weymouth	64	41
40. Fort Elson	247	110
41. Reading	246	142
42. Oxford	196	122
43. Chichester	152	40
44. Warley	117	84
45. Canterbury	116	22
46. Maidstone	145	127
47. Kingston-on-Thames.	122	86
48. Guildford	108	62
49. Woolwich	481	213
50. Woolwich	111	28
51. 52. 53. 54. Winchester	—	—
55. Fort George	34	30
56. Aberdeen	82	69
57. Perth	110	77
58. Stirling	178	135
59. Paisley	309	167
60. Hamilton	352	103
61. Ayr	156	115
62. Greenlaw	344	46
63. Belfast	506	144
64. Omagh	136	92
65. Armagh	277	138
66. Naas	393	155
67. Birr	108	85
68. Galway	173	155
69. Clonmel	266	155
70. Tralee	223	123
Total in Infantry Sub-Districts	16,898	8,709
Artillery Sub-Districts. Liverpool	210	—
York	100	—
Colchester	53	—
Plymouth	20	—
Bristol	123	—
Wimborne	33	—
Dover	55	—
Woolwich	—	—
Edinburgh	155	—
Aberdeen	103	—
Dublin	44	—
Cork	24	—
Total in Artillery Sub-Districts	920	—
Cavalry Districts York	—	—
Cavalry Districts Aldershot	1	—
Total in Cavalry Districts	1	—
Recruiting Districts London	4,595	—
Recruiting Districts Dublin	428	—
Total in Recruiting Districts	5,023	—
At Headquarters of Regiments	6,274	—
General Total	29,116	8,709

N.B.—The Sub-Districts which are bracketed are grouped together for recruiting purposes, and the numbers shown are the recruits obtained by the agencies under the orders of the officers commanding the respective Sub-Districts.

TABLE 14.—AGES of the RECRUITS who joined the Regular Army during 1876.

Corps.	Under 17 years.	17 to 18 years.	18 to 19 years.	19 to 20 years.	20 to 21 years.	21 to 22 years.	22 to 23 years.	23 to 24 years.	24 to 25 years.	Over 25 years.	Total.
Household Cavalry	5	5	27	28	31	31	14	8	2	7	158
Cavalry of the Line	73	7	621	697	458	365	251	169	84	20	2,745
Royal Artillery	200	50	695	1,653	801	661	536	462	471	385	5,914
Royal Engineers	32	12	112	134	69	79	64	39	48	50	639
Foot Guards	22	54	326	220	170	135	119	75	97	75	1,293
Infantry of the Line	611	86	5,713	3,531	2,185	1,602	1,269	1,038	943	1,084	18,062
Colonial Corps	8	18	23	36	28	37	16	9	8	14	197
Army Service Corps	14	2	101	75	39	36	25	15	17	18	342
Army Hospital Corps	—	—	2	4	1	1	2	2	—	6	18
Total	965	234	7,620	6,378	3,782	2,947	2,296	1,817	1,670	1,659	29,368

N.B.—See note at page 10.

TABLE 15.—RE-ENGAGEMENTS and EXTENSIONS of SERVICE during 1876.

Corps.	While serving.								After discharge.		Men enlisted for short service who have been permitted to extend their engagement in order to complete a period of 12 years.
	After 6 years service.	After 7 years service.	After 8 years service.	After 9 years service.	After 10 years service.	After 11 years service.	After 12 years service.	Total.	Within 12 months.	After 12 months.	
Household Cavalry	—	—	—	1	—	12	8	21	5	—	—
Cavalry of the Line	—	—	55	49	24	63	3	194	7	1	1
Royal Artillery	—	—	467	130	84	37	28	746	20	1	—
Royal Engineers	—	—	9	15	11	69	28	132	6	—	—
Foot Guards	—	2	39	36	4	—	—	81	8	—	14
Infantry of the Line	54	64	2,320	639	111	5	5	3,198	53	2	328
Colonial Corps	—	—	11	22	5	—	—	38	1	—	—
Army Service Corps	—	2	20	35	14	6	1	78	1	—	17
Army Hospital Corps	1	3	10	5	—	—	—	19	4	2	15
Total	55	71	2,931	932	253	192	73	4,507	105	6	375

TABLE 16.—NUMBER of MEN DISCHARGED from the army as reported during 1876, causes of discharge, and number of Pensions granted.

Corps.	On completion of service.			As Invalids.	By indulgence.		For misconduct.	Other causes.	Total.	Pensions granted.	
	After 21 years service.	After 18 years service under Art. 1,115 of Pay Warrant.	After 1st period.		Purchase.	Free.				Permanent.	Temporary.
Household Cavalry -	35	—	20	20	34	1	2	14	126	36	15
Cavalry of the Line -	367	—	152	495	513	41	131	24	1,723	584	152
Royal Artillery - -	1,057	—	172	695	465	56	444	21	2,910	1,305	286
Royal Engineers -	206	—	84	61	98	6	58	—	513	220	31
Foot Guards - -	240	—	200	109	180	21	35	4	789	270	61
Infantry of the Line -	2,975	50	1,184	2,459	1,483	299	985	123	9,558	4,217	991
Colonial Corps - -	12	—	117	54	4	5	5	7	204	17	17
Army Service Corps -	104	—	22	38	61	31	10	1	267	121	14
Army Hospital Corps -	59	1	6	24	15	1	12	1	119	77	4
Total - -	5,055	51	1,957	3,955	2,853	461	1,682	195	16,209	6,847	1,571
Proportion per 1,000 of average strength -	28·7	·3	11·1	22·4	16·2	2·6	9·5	1·1	91·9	—	—
	40·1				18·8						

N.B.—See note at page 10.

TABLE 17.—AGES of the men Discharged from the Army during 1876.

Corps.	Under 30 years.	30 to 31 years.	31 to 32 years.	32 to 33 years.	33 to 34 years.	34 to 35 years.	35 to 36 years.	36 to 37 years.	37 to 38 years.	38 to 39 years.	39 to 40 years.	Upwards of 40 years.	Age not stated.	Total.
Household Cavalry -	58	12	7	5	3	1	1	—	2	1	3	33	—	126
Cavalry of the Line -	882	88	60	51	34	25	24	36	40	50	161	274	—	1,725
Royal Artillery - -	1,175	140	67	57	52	26	45	51	52	73	355	817	—	2,910
Royal Engineers -	164	37	18	18	13	16	9	10	2	6	63	157	—	513
Foot Guards - -	382	52	20	27	23	10	8	10	3	2	42	210	—	789
Infantry of the Line -	4,431	281	228	148	154	135	189	240	213	430	1,495	1,630	—	9,574
Colonial Corps -	125	12	2	2	2	2	3	1	1	3	5	5	6	169
Army Service Corps -	120	11	4	3	—	3	3	4	5	2	33	79	—	267
Army Hospital Corps -	38	3	—	1	—	1	—	5	—	3	20	48	—	119
Total - -	7,375	636	406	312	281	219	282	357	318	570	2,177	3,253	6	16,192
		5,558												

N.B.—See note at page 10.

TABLE 18.—NUMBER of DESERTIONS from each arm of the service during 1876, showing the services of the men, the number who rejoined, and the nett loss from desertion.

Corps.	Under 3 months.	3 to 6 months.	6 to 9 months.	9 to 12 months.	Under 1 year.	1 to 2 years.	2 to 3 years.	Over 3 years.	Total Deserted.	Rejoined from Desertion.	Nett loss from Desertion.
Household Cavalry	—	—	—	—	—	6	10	15	31	6	25
Cavalry of the Line	138	118	71	33	360	97	73	147	677	292	385
Royal Artillery	328	165	98	79	670	176	83	261	1,190	435	755
Royal Engineers	11	10	6	8	35	8	10	25	78	36	42
Foot Guards	17	6	14	6	43	14	10	57	124	65	59
Infantry of the Line	808	368	211	190	1,577	402	183	490	2,652	1,187	1,465
Colonial Corps	2	1	3	2	8	4	5	6	23	19	4
Army Service Corps	11	7	2	—	20	8	—	20	48	18	30
Army Hospital Corps	—	—	—	—	—	2	2	8	12	5	7
Total	1,315	675	405	318	2,713	717	376	1,029	4,835	2,063	2,772

N.B.—See note at page 10.

TABLE 19.—TRANSFERS from the Regular Army to the First Class Army Reserve during 1876.

Services.	Transfers from				
	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	Total.
After 3 years	—	45	—	—	45
After 4 years	—	17	—	—	17
After 5 years	—	33	3	—	36
After 6 years	34	480	23	10	547
After 7 years	—	17	2	—	19
After 8 years	—	18	4	—	22
After 9 years	—	10	1	—	11
After 10 years	—	4	—	—	4
After 11 years	—	5	—	—	5
After 12 years	—	—	—	—	—
After 13 years	—	1	—	—	1
After 14 years	—	—	—	—	—
After 15 years	—	2	—	—	2
After 16 years	—	—	—	—	—
After 17 years	—	—	—	—	—
Service not stated	—	3	—	—	3
Total	34	635	33	10	712
On completion of Short Service with the Colours	34	457	23	10	524
On conversion of Army Service	—	175	10	—	185
Service not stated	—	3	—	—	3
Total as above	34	635	33	10	712

TABLE 20.—INCREASE and DECREASE of the Non-Commissioned Officers and Men reported during each year from 1861 to 1876 inclusive.

Year.	Effectives on 1st January in each year.	Increase.						Decrease.							Nett Increase.	Nett Decrease.	Effectives on 31st December in each year.
		Recruits joined.	Vols. from Embd. Militia.	From Desertion.	From Army Reserve.	Other causes.	Total Increase.	Dead.	Discharged.	Deserted.	To Army Reserve.	Given up as Deserters.	Other causes.	Total Decrease.			
1861 -	217,922	10,918	209	1,703	—	—	12,830	4,290	14,875	4,559	—	† —	462	24,186	—	11,356	206,566
1862 -	206,566	8,814	—	1,215	—	*14,211	24,240	3,450	12,231	2,895	—	—	—	18,576	5,664	—	212,230
1863 -	212,230	11,744	—	1,077	—	—	12,821	3,033	11,892	2,971	—	—	1,141	19,037	—	6,216	206,014
1864 -	206,014	16,323	—	947	—	—	17,270	3,373	13,118	3,079	—	—	543	20,113	—	2,843	203,171
1865 -	203,171	14,430	—	1,010	—	—	15,440	3,403	16,086	3,519	—	—	1,054	24,062	—	8,622	194,549
1866 -	194,549	15,277	—	1,039	—	—	16,316	2,730	14,323	3,583	—	—	561	21,197	—	4,881	189,668
1867 -	189,668	19,453	—	1,249	—	—	20,702	3,104	13,607	3,449	—	—	658	20,818	—	116	189,552
1868 -	189,552	17,060	—	1,221	—	—	18,281	2,685	16,419	3,011	—	—	420	22,535	—	4,254	185,298
1869 -	185,298	12,020	—	1,166	—	—	13,186	3,157	17,380	3,341	—	—	408	24,286	—	11,100	174,198
1870 -	174,198	24,594	—	1,088	—	—	25,682	2,508	15,720	3,171	—	—	161	21,560	4,122	—	178,320
1871 -	178,320	23,568	—	1,498	—	—	25,066	2,220	10,162	4,553	2,237	—	594	19,766	5,300	—	183,620
1872 -	183,620	17,791	—	1,855	20	—	19,666	2,546	11,553	5,861	17	343	398	20,718	—	1,052	182,568
1873 -	182,568	17,194	—	1,785	19	—	18,998	2,046	13,513	5,702	1,030	435	503	23,229	—	4,231	178,337
1874 -	178,337	20,640	—	2,052	27	—	22,719	2,011	13,255	5,572	744	588	610	22,780	—	61	178,276
1875 -	178,276	18,494	—	1,944	11	—	20,449	2,161	14,235	4,382	712	549	830	22,869	—	2,420	175,856
1876 -	175,856	29,370	—	2,063	21	—	31,454	1,998	16,209	4,878	712	663	975	25,435	6,019	—	181,875

* European Troops of East India Company transferred to Regular Army.

† Prior to 1872 the men who were "Given up as Deserters" to other corps are included in the column headed "Other causes."

TABLE 21.—NUMBER of RECRUITS who have joined the service since the date of the Army Enlistment Act of 1870, showing those who enlisted in each arm for long and short service respectively.

Corps.	1870.		1871.		1872.		1873.		1874.		1875.		1876.	
	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.
Household Cavalry -	115	—	103	—	124	—	130	—	122	—	127	—	158	—
Cavalry of the Line	2,026	—	2,255	—	1,973	—	1,948	—	1,501	780	823	1,753	645	2,100
Royal Artillery -	3,229	—	5,127	3*	4,106	—	3,479	—	3,741	772	1,699	1,469	2,167	3,747
Royal Engineers -	550	—	468	—	434	—	443	—	188	287	47	457	37	602
Foot Guards -	789	76	313	448	27	461	70	289	222	349	357	353	288	1,005
Infantry of the Line	14,468	2,306	5,747	8,701	522	9,724	862	9,539	1,444	10,613	2,043	8,977	1,847	16,222
Colonial Corps -	498	6	357	21	185	13	214	26	354	9	108	9	178	14
Army Service Corps	517	14	21	2	157	63	26	—	105	46	132	126	165	177
Army Hospital Corps	—	—	2	—	2	—	168	—	107	—	13	1	16	2
General Total -	22,192	2,402	14,393	9,175	7,530	10,261	7,340	9,854	7,784	12,856	5,349	13,145	5,501	23,869
	24,594		23,568		17,791		17,194		20,640		18,494		29,370	

* Enlisted in error.

N.B.—The Army Enlistment Act of 1870, under which recruiting for short service was first authorised, was promulgated to the army by Army Circular, dated 10th August 1870.

By General Order 39 of 1871, all recruits for the Foot Guards and Infantry, except boys and lads, were ordered to be enlisted for short service until further orders.

General Order 34 of 1874 defines the proportions in which Recruits for long and short service respectively are permitted to be enlisted for the several arms of the service.

Under General Orders 51 of 1874 and 53 of 1875 recruits for the Royal Artillery and Foot Guards may be enlisted for long and short service indiscriminately.

Under Army Circular 1874 (Cl. 67) short service in the Cavalry, Artillery, and Engineers consists of 8 years in the ranks and 4 years with the reserve, and in the Infantry and Army Service Corps of 6 years in the ranks and 6 years with the reserve.

TABLE 22.—NUMBER of RECRUITS enlisted, attested, finally approved, and sent to regiments, showing the number rejected deserted, &c., and the nett result of recruiting, in the UNITED KINGDOM, in each year from 1861 to 1876.

Year.	Enlisted.	After Enlistment.				Attested.	After Attestation.			Finally approved.	After final Approval.			Sent to or joined regiments.
		Primarily rejected.	Absconded.	Paid Smart.	Other causes.		Rejected.	Deserted.	Other causes.		Deserted.	Purchased discharge.	Other causes.	
1861	19,747	5,722	540	1,419	32	12,034	1,410	294	60	10,281	171	11	21	10,091
1862	12,516	3,789	294	756	12	7,665	776	81	20	6,796	52	4	4	6,728
1863	19,456	5,988	386	1,264	32	11,786	1,342	106	32	10,301	73	10	14	10,209
1864	27,787	8,262	700	2,260	53	16,512	1,676	197	28	14,607	105	7	22	14,465
1865	25,495	7,707	847	2,296	46	14,599	1,247	204	34	13,123	115	10	27	12,982
1866	23,410	6,105	472	1,870	35	14,928	970	176	28	13,752	88	5	21	13,640
1867	31,041	7,877	703	2,568	58	19,835	1,412	238	37	18,148	112	12	16	18,006
1868	25,376	6,347	372	1,685	51	16,912	940	141	25	15,818	64	6	10	15,743
1869	17,831	4,446	289	1,232	33	11,830	634	78	23	11,095	33	7	6	11,049
1870	34,547	7,125	501	2,370	84	24,485	1,153	206	43	23,081	42	—	6	23,031
1871	35,185	8,019	592	2,911	84	23,586	1,218	271	39	22,049	94	16	7	21,927
1872	28,426	6,341	566	2,470	68	18,976	1,038	256	51	17,650	119	15	12	17,507
1873	25,634	5,387	519	1,990	84	17,661	678	304	78	16,602	—	—	—	16,602
1874	30,356	5,415	677	2,588	159	21,517	793	323	89	20,312	—	—	—	20,312
1875	27,469	4,700	659	2,468	125	19,517	677	361	104	18,375	—	—	—	18,375
1876	44,713	8,317	1,064	4,143	204	30,985	1,150	562	157	29,116	—	—	—	29,116

Year.	Recruiting Agencies.								Where raised.			
	Head Quarter Recruits.	District and Sub-District Recruits.				Artillery Sub-Districts.	Cavalry Districts.	Total.	In England.	In Scotland.	In Ireland.	Total.
		Brigade Depôts.	Staff of Reserve Forces.	Pensioners.	Line Parties.							
1861	2,141	—	—	1,842	6,108	—	—	10,091	Not stated in the returns for these years.			10,091
1862	2,154	—	—	648	3,926	—	—	6,728				6,728
1863	3,377	—	—	2,436	4,396	—	—	10,209				10,209
1864	3,373	—	—	4,216	6,876	—	—	14,465				14,465
1865	2,679	—	—	4,207	6,096	—	—	12,982	9,681	1,248	2,053	12,982
1866	3,089	—	—	6,225	4,326	—	—	13,640	10,661	972	2,007	13,640
1867	4,207	—	—	8,955	4,844	—	—	18,006	14,190	1,456	2,360	18,006
1868	5,035	—	—	6,193	4,515	—	—	15,743	12,573	1,272	1,898	15,743
1869	2,912	—	—	4,717	3,420	—	—	11,049	8,927	691	1,431	11,049
1870	8,154	—	—	7,210	7,667	—	—	23,031	19,733	1,261	2,037	23,031
1871	6,879	—	—	7,947	7,101	—	—	21,927	18,015	1,547	2,365	21,927
1872	5,859	—	—	6,274	5,374	—	—	17,507	14,525	1,096	1,886	17,507
1873*	4,862	2,216	1,130	4,603	3,566	225	—	16,602	13,431	1,057	2,114	16,602
1874	5,404	4,236	2,451	4,477	3,183	561	—	20,312	15,676	1,789	2,847	20,312
1875	4,589	4,593†	1,970	4,060	2,565	579	19	18,375	14,285	1,540	2,550	18,375
1876	6,274	7,745†	4,469	6,470	3,237	920	1	29,116	23,228	2,267	3,621	29,116

* The new system for the localization of the forces under which the country was divided for recruiting purposes into 66 Sub-Districts came into operation on the 1st April 1873, from which date the old Recruiting Districts (with the exception of London and Dublin) were abolished.

† Including the Staff of the London and Dublin Recruiting Districts.

N.B.—Recruits raised for the Colonial Corps and others enlisted *abroad* are not included in this table; nor the men raised for the Household Cavalry and Foot Guards prior to 1872.

TABLE 23.—RE-ENGAGEMENTS since the passing of the Army Service Act of 1847, and Extensions of service since the passing of the Army Enlistment Act of 1870.

Period.	Before completing First Term.								On completing first term.	After discharge.‡	Total.	Men enlisted for short service who have been permitted to extend their engagement in order to complete a period of 12 years.
	After 6 years service.	After 7 years service.	After 8 years service.	After 9 years service.	After 10 years service.	After 11 years service.	Service not stated.	Total.				
1857 to October 1860	—	—	—	—	—	—	—	—	3,845	650	4,495	—
1860–1	—	—	—	—	—	—	—	—	1,829	360	2,189	—
1861–2	—	—	—	—	—	—	—	—	2,093	192	2,285	—
1862–3	—	—	—	—	—	—	—	—	2,613	137	2,750	—
1863–4	—	—	—	—	—	—	—	—	2,748	118	2,866	—
1864–5	—	—	—	—	—	—	—	—	3,742	228	3,970	—
1865–6	—	—	—	—	—	—	—	—	5,637	483	6,120	—
1866–7	—	—	—	—	—	—	—	—	3,184	458	3,642	—
1867–8*	1,346	3,012	6,223	7,911	1,270	1,056	—	20,818	10,026	632	31,476	—
1868–9	766	1,014	3,850	3,423	678	571	—	10,302	5,862	665	16,829	—
1869–70	1,072	766	2,440	1,469	324	381	—	6,452	3,450	100	10,002	—
1870–1†	1,405	861	1,130	590	181	150	—	4,317	1,836	136	6,289	—
April to December 1871	1,266	476	496	129	45	75	—	2,487	966	6	3,459	—
1872	1,096	834	527	235	109	151	—	2,952	Included in preceding column.	3	2,955	—
1873	1,265	746	597	362	131	182	8	3,291		6	3,297	—
1874	438	597	824	624	177	212	7	2,879		13	2,892	6
1875	109	183	1,649	685	245	202	—	3,073		55	3,128	135
1876	55	71	2,931	932	253	265	—	4,507		111	4,618	375

* By the Army Enlistment Act of 1867, men were permitted to re-engage after completing two-thirds of their first term of service, and by Royal warrant of 29th June 1867 the soldiers' pay was increased by twopence per diem, with a further penny a day on re-engagement.

† By the Army Enlistment Act of 1870, re-engagements were restricted to men in the last year of their first period of service, and by Royal warrant dated 2nd June 1870 the extra pay of a penny a day on re-engagement was discontinued, and the scale of good-conduct pay revised. These restrictions do not apply to men enlisted under the Acts of 1847 and 1867. See Army Circular, 1872 (clause 111).

‡ By Royal warrant of 27th February 1869, re-engagements after discharge were ordered to be discontinued. This restriction was withdrawn by Army Circular 1875 (Clause 109) and re-engagements within 12 months of discharge were again permitted within certain limits.

TABLE 24.—NUMBER of MEN DISCHARGED in each year from 1861 to 1876, causes of discharge, and number of PENSIONS granted, whether permanent or temporary.

Year.	On completion of service.			As invalids.	By indulgence.		For misconduct.	For other causes.	Total.	Pensions granted.	
	After 21 years' service.	After 18 years' service under Art. 1,115 of the Pay Warrant, and Art. 7 of Royal Warrant of 6th Sept. 1876.	After first period.		Purchase.	Free.				Permanent.	Temporary.
1861 -	1,682			6,462	2,217	2,899	Included with other causes.	1,615	14,875	3,170	3,790
1862 -	2,046			5,508	1,614	2,162		901	12,231	2,784	3,659
1863 -	1,927			4,424	1,809	2,002		1,730	11,892	2,818	3,548
1864 -	3,592			4,788	1,662	1,910		1,166	13,118	2,923	3,417
1865 -	6,088			4,950	2,276	1,960		812	16,086	2,739	3,672
1866 -	6,397			4,667	2,399	444	328	88	14,323	2,966	3,288
1867 -	6,330			3,874	2,667	268	299	169	13,607	3,364	2,924
1868 -	9,186			4,182	2,031	196	463	361	16,419	3,858	3,204
1869 -	2,966			4,715	1,844	2,614	2,470	2,771	17,380	3,418	3,951
1870 -	2,570			4,625	1,493	1,579	1,616	3,837	15,720	3,070	4,263
1871 -	1,498			3,697	2,109	1,541	1,032	285	10,162	2,149	2,549
1872 -	1,177	71	1,080	3,868	2,839	851	1,683	126	11,695	2,196	2,482
1873 -	1,973	163	1,129	3,456	2,994	914	2,065	819	13,513	2,868	1,806
1874 -	1,761	93	2,072	3,996	2,653	818	1,648	223	13,264	3,061	1,910
1875 -	2,621	41	2,658	3,593	2,847	620	1,667	191	14,238	3,965	1,593
1876 -	5,055	51	1,957	3,955	2,853	461	1,682	195	16,209	6,847	1,571

N.B.—Men discharged on reduction of Establishment are included in the column headed "For other causes."

TABLE 25.—SERVICES of DESERTERS in each year from 1868 to 1876, the number who rejoined the service, and proportion of Deserters to 1,000 men of the average strength.

Year.	Under 3 months.	3 to 6 months.	6 to 12 months.	Under one year.	1 to 2 years.	Over 2 years.	Service not stated.	Total Deserted.	Proportion of Deserters to 1,000 Men.	Rejoined from Desertion.	Nett loss from Desertion.
1868	347	369	403	1,119	469	1,399	24	3,011	16	1,221	1,790
1869	269	209	454	932	514	1,875	20	3,341	18	1,166	2,175
1870	417	250	297	964	363	1,788	56	3,171	18	1,088	2,083
1871	581	679	845	2,105	664	1,769	15	4,553	25	1,498	3,055
1872	626	562	908	2,096	1,507	2,237	21	5,861	32	1,855	4,006
1873	861	642	723	2,226	954	2,491	31	5,702	32	1,785	3,917
1874	1,219	807	819	2,845	670	2,044	23	5,582	31	2,052	3,530
1875	898	547	776	2,221	682	1,468	2	4,373	25	1,944	2,429
1876	1,315	675	723	2,713	717	1,405	—	4,835	27	2,063	2,772

TABLE 26.—RETURN showing the proportion of DESERTIONS from the ARMY to the RECRUITS joined as reported during each year from 1861 to 1876.

Year.	Recruits Joined.	Desertions.	Per-centage of Deserters to Recruits.
1861	10,918	4,559	41
1862	8,814	2,895	32
1863	11,744	2,971	25
1864	16,323	3,079	18
1865	14,430	3,519	24
1866	15,277	3,583	23
1867	19,453	3,449	17
1868	17,060	3,011	17
1869	12,020	3,341	27
1870	24,594	3,171	12
1871	23,568	4,553	19
1872	17,791	5,861	33
1873	17,194	5,702	33
1874	20,640	5,572	27
1875	18,494	4,382	24
1876	29,370	4,878	17
Total	277,690	64,526	23

N.B.—The small per-centage of desertions during 1870 is accounted for by the fact that the majority of the recruits were raised during the latter part of the year. As deserters were not struck off the strength of regiments until after an absence of two months, in many cases they would not be reported till the subsequent year.

The heavy per-centage during 1861 is due to the large number of recruits obtained during the preceding year.

By General Order 7 of 1872 the period of absence after which a soldier is struck off the strength of his regiment as a deserter was reduced from two months to 21 days.

TABLE 27.—SERVICES of MEN transferred from the Regular Army to the 1st Class Army Reserve in each year since the date of the Army Enlistment Act of 1870.

Year.	Services of Men transferred.																Total.	On completion of Short Service with the Colours.	On conversion of Army Service.
	After 3 years.	After 4 years.	After 5 years.	After 6 years.	After 7 years.	After 8 years.	After 9 years.	After 10 years.	After 11 years.	After 12 years.	After 13 years.	After 14 years.	After 15 years.	After 16 years.	After 17 years.	Service not stated.			
1871 -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,237	2,237	—	2,237
1872 -	2	1	—	4	—	1	—	—	—	—	4	—	—	—	—	5	17	—	17
1873 -	280	170	101	70	95	79	36	29	17	43	53	34	22	—	—	1	1,030	—	1,030
1874 -	410	80	43	44	44	47	25	8	3	5	11	10	5	1	1	7	744	—	744
1875 -	230	145	98	62	51	66	21	13	14	2	3	1	4	—	—	2	712	—	712
1876 -	45	17	36	547	19	22	11	4	5	—	1	—	2	—	—	3	712	524	185

N.B.—There are no means of showing the services of the men who were transferred to the Army Reserve during the year 1871.

PART III.—FOREIGN RELIEFS AND RE-INFORCEMENTS.

TABLE 28.—REGIMENTS and DETACHMENTS embarked for Foreign Service during 1876, and ages of the men embarked with drafts.

CORPS.	Regiments, Batteries, &c.					Detachments.															Total of each Arm.
	No. of.	Sergeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	Total Regiments.	Under 18 years of age.	18 to 19 years.	19 to 20 years.	20 to 21 years.	21 to 22 years.	22 to 23 years.	23 to 24 years.	24 to 25 years.	25 to 26 years.	26 to 27 years.	27 to 28 years.	28 to 29 years.	29 to 30 years.	Over 30 years.	Ages not stated.	Total Drafts.	
FOR INDIA.																					
Cavalry of the Line	2	75	16	784	875	11	3	16	136	56	40	37	23	17	9	7	1	2	21	—	379	1,254
Royal Artillery	11	80	24	1,213	1,317	—	28	102	226	237	139	47	87	78	60	20	17	16	97	1	1,155	2,472
Infantry of the Line	4	140	67	2,964	3,171	56	24	181	607	351	203	121	85	61	47	16	12	13	63	1	1,841	5,012
Total	—	295	107	4,961	5,363	67	55	299	969	644	382	205	195	156	116	43	30	31	181	2	3,375	8,738
FOR THE COLONIES.																					
Royal Artillery	7	39	14	641	694	4	67	56	28	18	18	19	12	15	4	4	2	1	8	—	256	950
Royal Engineers	4	22	8	280	*310	7	2	6	11	5	10	8	13	10	9	6	5	7	39	—	138	448
Infantry of the Line	4	144	66	2,474	2,684	42	146	321	340	186	128	79	73	56	17	16	13	9	78	—	1,504	4,188
Army Service Corps	—	—	—	—	—	—	—	1	—	1	3	7	6	7	2	3	3	4	11	—	48	48
Army Hospital Corps	—	—	—	—	—	—	—	6	12	5	2	3	6	1	1	2	—	2	14	—	54	54
Total	—	205	88	3,395	3,688	53	215	390	391	215	161	116	110	89	33	31	23	23	150	—	2,000	5,688
General Total	—	500	195	8,356	9,051	120	270	689	1,360	859	543	321	305	245	149	74	53	54	331	2	5,375	14,426

The 20th company Royal Engineers which disembarked from Bermuda on the 19th October, and re-embarked for Malta on the 12th December 1876 is included in these numbers.

TABLE 29.—REGIMENTS and DETACHMENTS disembarked from Foreign Service during 1876, specifying the number of Invalids and Time-expired men.

Corps.	Regiments, Batteries, &c.					Detachments.				Total of each arm.
	No. of.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	Total Regiments.	Invalids.	Time expired men.	Other causes.	Total Detachments.	
FROM INDIA.										
Cavalry of the Line	1	38	6	281	325	191	95	18	304	629
Royal Artillery	10	71	18	826	915	614	168	29	811	1,726
Infantry of the Line	4	142	59	1,810	2,011	1,834	1,548	351	3,733	5,744
Total	—	251	83	2,917	3,251	2,639	1,811	398	4,848	8,099
FROM THE COLONIES.										
Royal Artillery	3	14	4	205	223	111	25	4	140	363
Royal Engineers	4	21	6	259	*286	29	48	63	140	426
Infantry of the Line	1	40	16	545	601	246	335	335	916	1,517
Army Service Corps	—	—	—	—	—	1	2	33	36	36
Army Hospital Corps	—	—	—	—	—	7	8	6	21	21
Total	—	75	26	1,009	1,110	394	418	441	1,253	2,363
General Total	—	326	109	3,926	4,361	3,033	2,229	839	6,101	10,462

*The 20th Company Royal Engineers which dis-embarked from Bermuda on the 19th October, and re-embarked for Malta on the 12th December 1876 is included in these numbers.

TABLE 30.—REGIMENTS and DETACHMENTS embarked for Foreign Service in each year from 1871 to 1876.

Year.	—	For India.				For the Colonies.						Total embarked.
		Cavalry of the Line.	Royal Artillery.	Infantry of the Line.	All Arms.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	
1871	Regiments, &c.	—	611	5,458	6,069	—	—	—	—	—	—	6,069
	Detachments	13	611	1,104	1,728	740	116	1,252	54	39	2,201	3,929
	Total	13	1,222	6,562	7,797	740	116	1,252	54	39	2,201	9,998
1872	Regiments, &c.	—	—	4,423	4,423	716	93	1,261	—	—	2,070	6,493
	Detachments	370	922	2,265	3,557	619	71	2,050	13	22	2,775	6,332
	Total	370	922	6,688	7,980	1,335	164	3,311	13	22	4,845	12,825
1873	Regiments, &c.	480	795	2,564	3,839	1,017	82	4,709	—	—	5,808	9,647
	Detachments	349	1,044	2,088	3,481	96	194	1,592	82	143	2,107	5,588
	Total	829	1,839	4,652	7,320	1,113	276	6,301	82	143	7,915	15,235
1874	Regiments, &c.	450	1,103	862	2,415	959	—	3,111	—	—	4,070	6,485
	Detachments	125	1,138	2,401	3,664	307	243	2,596	50	62	3,258	6,922
	Total	575	2,241	3,263	6,079	1,266	243	5,707	50	62	7,328	13,407
1875	Regiments, &c.	433	1,188	3,354	4,975	—	93	778	—	—	871	5,846
	Detachments	115	558	2,021	2,694	226	118	1,395	28	91	1,858	4,552
	Total	548	1,746	5,375	7,669	226	211	2,173	28	91	2,729	10,398
1876	Regiments, &c.	875	1,317	3,171	5,363	694	310	2,684	—	—	3,688	9,051
	Detachments	379	1,155	1,841	3,375	256	138	1,504	48	54	2,000	5,375
	Total	1,254	2,472	5,012	8,738	950	448	4,188	48	54	5,688	14,426

TABLE 31.—REGIMENTS and DETACHMENTS disembarked from Foreign Service in each year from 1871 to 1876.

Year.		From India.				From the Colonies.						Total disembarked.
		Cavalry of the Line.	Royal Artillery.	Infantry of the Line.	All Arms.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	
1871	Regiments, &c.	—	807	2,040	2,847	—	149	1,073	—	—	1,222	4,069
	Detachments	205	697	1,859	2,761	204	68	911	23	31	1,237	3,998
	Total	205	1,504	3,899	5,608	204	217	1,984	23	31	2,459	8,067
1872	Regiments, &c.	312	884	1,696	2,892	480	—	1,501	—	—	1,981	4,873
	Detachments	274	706	1,930	2,910	204	80	719	14	23	1,040	3,950
	Total	586	1,590	3,626	5,802	684	80	2,220	14	23	3,021	8,823
1873	Regiments, &c.	280	382	2,416	3,078	1,105	—	681	—	—	1,786	4,864
	Detachments	244	742	2,353	3,339	151	79	823	8	16	1,077	4,416
	Total	524	1,124	4,769	6,417	1,256	79	1,504	8	16	2,863	9,280
1874	Regiments, &c.	353	769	1,810	2,932	966	144	2,369	—	—	3,479	6,411
	Detachments	276	654	2,641	3,571	182	59	1,343	70	156	1,810	5,381
	Total	629	1,423	4,451	6,503	1,148	203	3,712	70	156	5,289	11,792
1875	Regiments, &c.	—	633	3,075	3,708	—	—	1,838	—	—	1,838	5,546
	Detachments	238	644	2,825	3,707	180	144	1,007	47	40	1,418	5,125
	Total	238	1,277	5,900	7,415	180	144	2,845	47	40	3,256	10,671
1876	Regiments, &c.	325	915	2,011	3,251	223	286	601	—	—	1,110	4,361
	Detachments	304	811	3,733	4,848	140	140	916	36	21	1,253	6,101
	Total	629	1,726	5,744	8,099	363	426	1,517	36	21	2,363	10,462

TABLE 32.—NUMBER of COURTS-MARTIAL held during 1876, showing the OFFENCES for which the men were tried the Sentences awarded, and the Punishments inflicted, in each arm of the service, at home and abroad.

Courts-Martial and Offences.

—	AT HOME.									ABROAD.								GENERAL TOTAL.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Number of Courts-Martial	25	990	1,986	128	334	5,353	99	42	8,957	107	1,004	82	3,349	148	5	5	4,700	13,657
Mutiny - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Desertion - - -	7	361	505	39	78	1,530	22	8	2,550	7	32	1	163	23	—	—	226	2,776
Violence to Superiors and Insubordination -	2	63	179	12	55	432	18	1	762	22	150	16	402	14	1	—	605	1,367
Disobedience - -	—	10	49	1	18	79	—	—	157	3	21	2	78	2	—	—	106	263
Quitting or Sleeping on Post - - - -	—	58	79	5	8	67	10	—	227	10	57	4	153	15	—	—	239	466
Drunk on Duty under Arms - - - -	—	45	103	8	14	511	3	3	687	16	118	5	624	7	1	—	771	1,458
Drunkenness - -	3	64	210	14	51	850	15	5	1,212	17	235	34	904	6	4	3	1,203	2,415
Disgraceful Conduct -	4	56	120	10	21	289	13	2	515	7	45	2	281	9	1	1	346	861
Absence without Leave -	6	210	524	38	87	1,097	20	13	1,995	14	171	20	516	12	1	1	735	2,730
Making away with Necessaries - - -	3	323	838	54	111	2,017	31	1	3,378	13	177	5	829	22	—	—	1,046	4,424
Miscellaneous—(See Art. of War, 105) - -	5	258	573	16	124	1,513	39	10	2,538	23	225	25	930	58	3	—	1,264	3,802
Total of Offences -	30	1,448	3,180	197	567	8,385	171	43	14,021	132	1,231	114	4,880	168	11	5	6,541	20,562

TABLE 32—*continued.*—Sentences awarded.

—	AT HOME.									ABROAD.								GENERAL TOTAL.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Death	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Penal Servitude	—	1	—	—	—	8	2	—	11	1	12	—	26	—	—	—	39	50
Reduction to the Ranks	4	94	261	20	27	751	16	15	1,188	19	187	19	655	17	3	2	902	2,090
Reduction to the Ranks and Imprisonment	1	9	23	2	3	108	2	1	154	3	15	2	56	5	—	—	81	235
Corporal Punishment	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	2
Corporal Punishment and Imprisonment	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
To be put under Stoppages, without other punishment	—	—	25	1	—	11	—	—	37	2	37	4	9	—	—	—	52	89
Solitary Confinement	—	—	2	—	—	—	—	—	2	—	—	—	—	—	—	—	—	2
Solitary Confinement and Imprisonment with or without Hard Labour	—	3	18	—	1	38	—	—	60	—	17	3	64	8	—	—	92	152
Imprisonment with or without Hard Labour	20	874	1,626	103	296	4,378	79	24	7,400	76	709	53	2,453	114	2	3	3,410	10,810
Total of Sentences	25	981	1,960	126	327	5,294	99	40	8,852	101	977	81	3,265	144	5	5	4,578	13,430
Acquitted	—	9	26	2	6	57	—	2	102	6	27	—	82	4	—	—	119	221

TABLE 32—*continued.*—Punishments inflicted.

	At Home.									Abroad.								General Total.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Death	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Penal Servitude	—	1	—	—	—	8	2	—	11	1	12	—	25	—	—	—	38	49
Reduction to the Ranks	4	79	221	11	24	708	14	14	1,075	18	154	15	585	14	2	2	790	1,865
Reduction to the Ranks and Imprisonment	1	7	25	2	3	89	1	1	129	3	13	1	50	5	—	—	72	201
Corporal Punishment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corporal Punishment and Imprisonment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Put under Stoppages, without other punishment	—	1	25	1	—	16	—	—	43	2	37	4	18	—	—	—	61	104
Solitary Confinement	—	—	2	—	—	—	—	—	2	—	—	—	—	—	—	—	—	2
Solitary Confinement and Imprisonment with or without Hard Labour	—	3	18	—	1	37	—	—	59	—	17	2	61	8	—	—	88	147
Imprisonment with or without Hard Labour	20	861	1,616	103	295	4,357	79	23	7,354	73	693	51	2,435	113	1	3	3,369	10,723
Total of Punishments	25	952	1,907	117	323	5,215	96	38	8,673	97	926	73	3,174	140	3	5	4,418	13,091
Pardoned	—	29	53	9	4	78	3	2	178	4	51	8	91	4	2	—	160	338

One court-martial quashed.
Three men sentenced to be discharged with ignominy without other punishment, one of whom was pardoned.

One man found guilty but not sentenced.
One schoolmaster sentenced to loss of service.
One man dismissed without other punishment.

TABLE 33.—NUMBER of MEN tried by COURTS-MARTIAL, compared with the number of trials, in each arm of the service, during 1876; also the number of each description of Court.

CORPS.	Number of men tried.					Number of trials.			
	Once.	Twice.	Three times.	Four times.	Total.	General Courts-Martial.	District or Garrison Courts-Martial.	Regimental or Detachment Courts-Martial.	Total.
Household Cavalry	23	1	—	—	24	—	14	11	25
Cavalry of the Line	894	87	7	2	990	3	671	423	1,097
Royal Artillery	2,249	309	37	3	2,598	20	1,719	1,251	2,990
Royal Engineers	173	17	1	—	191	—	125	85	210
Foot Guards	269	25	5	—	299	—	211	123	334
Infantry of the Line	6,998	729	74	6	7,807	52	4,822	3,828	8,702
Colonial Corps	122	13	—	—	135	—	83	65	148
Army Service Corps	89	6	1	—	96	4	77	23	104
Army Hospital Corps	47	—	—	—	47	—	24	23	47
General Total	10,864	1,187	125	11	12,187	79	7,746	5,832	13,657

TABLE 34.—NUMBER of MEN fined for DRUNKENNESS during 1876, compared with the number of FINES inflicted, in each arm of the service.

CORPS.	NUMBER OF MEN FINED.													NUMBER OF CASES OF FINES INFLICTED.
	Once.	Twice.	Three times.	Four times.	Five times.	Six times.	Seven times.	Eight times.	Nine times.	Ten times.	Eleven times.	Twelve times.	Total of men Fined.	
Household Cavalry	8	3	—	—	—	—	—	—	—	—	—	—	11	14
Cavalry of the Line	455	161	76	25	13	3	—	1	—	—	—	—	734	1,196
Royal Artillery	1,772	756	404	193	109	58	25	10	2	—	—	1	3,330	6,446
Royal Engineers	166	75	35	16	19	3	2	1	2	—	—	—	319	638
Foot Guards	293	99	44	22	12	4	3	1	—	1	—	—	479	834
Infantry of the Line	9,587	4,403	2,365	1,321	727	405	211	92	46	14	12	4	19,187	39,784
Colonial Corps	118	21	8	8	1	1	—	1	—	—	—	—	158	235
Army Service Corps	57	29	13	7	—	—	—	1	—	—	—	—	107	190
Army Hospital Corps	34	13	4	2	5	—	—	—	—	—	—	—	58	105
General Total	12,490	5,560	2,949	1,594	886	474	241	107	50	15	12	5	24,383	49,442

TABLE 35.—NUMBER of MINOR PUNISHMENTS, including Fines for Drunkenness, inflicted by order of Commanding Officers, in each arm of the service, at home and abroad, during 1876.

Corps.	Home.	Abroad.	Total.
Household Cavalry	884	—	884
Cavalry of the Line	16,642	2,391	19,033
Royal Artillery	29,536	14,550	44,086
Royal Engineers	3,891	2,030	5,921
Foot Guards	10,124	—	10,124
Infantry of the Line	99,603	67,867	167,470
Colonial Corps	—	4,674	4,674
Army Service Corps	1,953	61	2,014
Army Hospital Corps	905	120	1,025
Total	163,538	91,693	255,231

TABLE 36.—NUMBER of MEN tried by COURT-MARTIAL in 1865, and in each year from 1872 to 1876, and the total number of trials.

YEAR.	Number of men tried.							Number of trials.
	Once.	Twice.	Three times.	Four times.	Five times.	Six times.	Total Men.	
1865	16,026	2,151	374	34	4	1	18,590	21,612
1872	10,115	1,596	271	40	2	—	12,024	14,290
1873	10,683	1,148	152	14	—	—	11,997	13,491
1874	10,995	1,231	170	22	1	—	12,419	14,060
1875	10,896	1,173	134	13	1	—	12,217	13,701
1876	10,864	1,187	125	11	—	—	12,187	13,657

TABLE 37.—COURTS-MARTIAL, CRIMES, and PUNISHMENTS, in each year from 1865 to 1876.

Courts-Martial and Offences.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
No. of Courts-Martial	21,612	23,936	23,535	26,870	19,017	13,321	14,882	14,290	13,491	14,060	13,701	13,657
Offences. Mutiny	—	18	1	1	2	2	—	2	5	—	2	—
Desertion	1,914	1,884	2,035	2,143	1,855	1,521	2,136	2,421	2,365	2,692	2,523	2,776
Violence to Superiors and Insubordination	1,272	1,173	1,149	1,565	1,797	1,645	1,751	1,622	1,446	1,529	1,589	1,367
Disobedience	454	298	208	264	309	215	275	273	241	256	251	263
Quitting or Sleeping on Post	475	495	478	565	552	427	444	393	420	480	494	466
Drunk on Duty under Arms	1,803	1,353	1,470	1,680	1,772	1,428	1,435	1,232	1,218	1,416	1,457	1,458
Habitual Drunkenness	*6,853	9,504	9,353	10,966†	—	—	—	—	—	—	—	—
Drunkenness	—	—	—	—	3,903	2,175	2,347	2,226	2,071	2,418	2,378	2,415
Disgraceful Conduct	723	677	557	785	761	727	729	733	728	800	760	861
Absence without Leave	3,779	3,762	3,580	4,019	3,273	2,992	3,340	3,392	2,909	3,151	3,219	2,730
Making away with Necessaries	2,685	2,945	2,468	2,556	2,695	2,504	2,639	2,862	2,662	3,874	4,156	4,424
Miscellaneous — (See Art. of War, 105.)	5,122	5,232	4,989	5,530	5,226	2,762	2,814	2,769	2,623	3,314	3,599	3,802
Total of Offences	25,080	27,341	26,288	30,074	22,145	16,398	17,910	17,925	16,688	19,930	20,428	20,562

* By Circular letter, dated 11th August 1865, men who have been drunk four times during twelve months were directed to be brought to trial for Habitual Drunkenness.

† The large decrease in the number of trials for drunkenness is due to the introduction of a system of fines under the Articles of War for 1869.

TABLE 37—*continued.* Sentences awarded.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Death	—	6	1	2	—	—	—	1	3	3	1	—
Penal Servitude	92	67	43	63	90	50	55	61	55	62	62	50
Reduction to the Ranks	3,399	3,069	2,998	3,449	3,045	2,639	2,590	2,345	2,346	2,368	2,321	2,325
Corporal Punishment	233	120	54	21	1	1	—	—	5	3	—	2
Corporal Punishment and Imprisonment	631	630	210	44	—	1	—	—	—	—	—	—
To be put under stoppages, without other punishment	102	159	365	847	502	130	184	97	123	96	116	89
Solitary Confinement	9	20	23	14	4	3	3	15	3	6	4	2
Solitary Confinement and Imprisonment with or without Hard Labour	581	720	684	669	609	251	343	304	211	159	110	152
Imprisonment with or without Hard Labour	16,081	18,474	18,682	21,262	14,355	9,952	11,325	11,164	10,451	11,120	10,833	10,810
Total of Sentences	21,128	23,265	23,060	26,371	18,606	13,027	14,500	13,987	13,197	13,817	13,447	13,430
Acquitted	484	669	472	499	406	293	379	302	292	237	249	221

TABLE 37—*continued.* Punishments inflicted.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Death	—	2	—	2	—	—	—	1	3	3	1	—
Penal Servitude	89	68	44	60	86	46	51	61	52	61	58	49
Reduction to the Ranks	3,122	2,799	2,723	3,148	2,720	2,375	2,324	2,104	2,075	2,090	2,054	2,066
Corporal Punishment	134	101	*29	*19	—	—	—	—	2	—	—	—
Corporal Punishment and Imprisonment	466	409	*121	*22	—	†1	—	—	—	—	—	—
Put under stoppages without other punishment	113	217	392	900	499	140	190	104	130	102	119	104
Solitary Confinement	6	18	8	13	5	3	3	14	1	6	2	2
Solitary Confinement and Imprisonment with or without Hard Labour	570	599	619	658	534	221	334	290	205	152	109	147
Imprisonment with or without Hard Labour	16,192	18,619	18,585	20,982	14,284	9,818	11,229	11,057	10,376	11,030	10,753	10,723
Total of Punishments	20,692	22,832	22,521	25,804	18,128	12,604	14,131	13,631	12,844	13,444	13,096	13,091
Pardoned	432	428	537	562	470	416	362	349	349	369	346	338

* By the Mutiny Act of 1867, the infliction of Corporal Punishment was restricted to the crimes of Mutiny and Violence to Superiors, and by the Mutiny Act of 1868 this punishment was abolished, "except on Active Service or on board a Ship not in Commission."

† On board ship.

TABLE 38.—NUMBER of GENERAL, DISTRICT, and REGIMENTAL COURTS-MARTIAL at home and abroad from 1865 to 1876, and the proportion per 1,000 of the average strength.

Years.	Average Effectives.			No. of Courts-Martial.						Proportion per 1,000 men.		
	Home.	Abroad.	Total.	General.	District or Garrison.	Regimental or Detachment.	Home.	Abroad.	Total.	Home.	Abroad.	Total.
1865	80,045	118,003	198,048	155	7,020	14,437	Cannot be		21,612	Cannot be		109
1866	79,654	111,265	190,919	120	7,016	16,800	given		23,936	given		125
1867	83,131	106,650	189,781	103	6,651	16,781	separately.		23,535	separately.		124
1868	84,979	101,529	186,508	162	7,517	19,191	12,701	14,169	26,870	149	139	144
1869	81,542	94,917	176,459	198	7,025	11,794	8,621	10,396	19,017	106	110	107
1870	84,848	85,969	170,817	91	6,379	6,851	6,837	6,484	13,321	80	75	77
1871	100,877	82,594	183,471	91	7,303	7,488	9,497	5,385	14,882	94	65	81
1872	99,306	83,709	183,015	99	7,532	6,659	9,314	4,976	14,290	93	59	78
1873	95,768	83,919	179,687	88	7,220	6,183	8,420	5,071	13,491	88	60	76
1874	93,114	84,991	178,105	105	7,740	6,215	9,240	4,820	14,060	99	57	79
1875	92,802	83,785	176,587	93	7,724	5,884	9,132	4,569	13,701	98	54	77
1876	92,781	83,511	176,292	79	7,746	5,832	8,957	4,700	13,657	96	56	77

TABLE 39.—NUMBER of MEN FINED for DRUNKENNESS, and the total number of FINES inflicted, in each year from 1869 to 1876.

YEARS.	NUMBER OF MEN FINED.																Number of cases of fines inflicted.
	Once.	Twice.	Three times.	Four times.	Five times.	Six times.	Seven times.	Eight times.	Nine times.	Ten times.	Eleven times.	Twelve times.	Thirteen times.	Fourteen times.	Fifteen times.	Total of men fined.	
1869 - -	Not reported.															20,680	28,374
1870 - -																31,134	48,458
1871 - -																35,267	54,398
1872 - -	13,785	5,834	3,081	1,794	798	398	237	112	44	16	8	2	—	2	—	26,111	51,501
1873 - -	12,516	5,123	2,726	1,575	831	406	219	101	52	25	15	6	5	3	—	23,603	47,234
1874 - -	12,760	5,421	2,965	1,600	902	476	224	98	56	34	18	2	4	—	—	24,560	49,733
1875 - -	12,352	5,539	2,970	1,574	813	417	198	73	38	17	13	2	1	—	1	24,008	47,880
1876 - -	12,490	5,560	2,949	1,594	886	474	241	107	50	15	12	5	—	—	—	24,383	49,442

TABLE 40.—NUMBER of MINOR PUNISHMENTS inflicted by order of Commanding Officers at home and abroad, in each year, from 1868 to 1876, and the proportion per 1,000 of the average strength.

YEAR.	Average Effectives.			Number of Minor Punishments.			Proportion per 1,000 men.		
	Home.	Abroad.	Total.	Home.	Abroad.	Total.	Home.	Abroad.	Total.
1868 - -	84,979	101,529	186,508	150,771	Not reported.		1,774	Not reported.	
1869 - - -	81,542	94,917	176,459	130,455	117,453	247,908	1,600	1,237	1,405
1870 - -	84,848	85,969	170,817	130,939	95,189	226,128	1,543	1,107	1,324
1871 - - -	100,877	82,594	183,471	179,754	91,725	271,479	1,782	1,111	1,473
1872 - -	99,306	83,709	183,015	159,405	89,774	249,179	1,605	1,072	1,361
1873 - - -	95,768	83,919	179,687	148,022	87,315	235,337	1,545	1,040	1,310
1874 - -	93,114	84,991	178,105	162,484	92,833	255,317	1,745	1,092	1,433
1875 - -	92,802	83,785	176,587	164,108	87,884	251,992	1,768	1,049	1,427
1876 - - -	92,781	83,511	176,292	163,538	91,693	255,231	1,763	1,098	1,448

TABLE 41.—PAST SERVICES of the Non-Commissioned Officers and Men of the different arms on the 1st January 1877, at Home, in the Colonies, and in India.

Corps.	Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 6.	6 to 7.	7 to 8.	8 to 9.	9 to 10.	10 to 11.	11 to 12.	12 to 13.	13 to 14.	14 to 15.	15 to 16.	16 to 17.	17 to 18.	18 to 19.	19 to 20.	20 to 21.	Over 21 years.	Not reported.	Total.
AT HOME.																								
Household Cavalry	146	103	83	78	73	63	58	82	54	63	71	50	29	33	19	37	26	26	28	17	12	56	—	1,207
Cavalry of the Line	2,148	1,537	1,180	792	727	687	621	334	479	473	265	248	112	168	127	86	253	352	726	294	298	144	—	12,054
Royal Artillery	5,197	2,039	1,543	984	814	1,062	710	316	374	419	318	264	185	209	280	593	580	651	655	419	603	287	—	18,502
Royal Engineers	626	389	265	148	149	206	267	122	135	127	126	66	102	80	78	91	104	86	144	87	89	152	—	3,639
Foot Guards	1,210	572	426	269	353	487	445	233	239	226	94	89	77	69	91	118	105	102	145	99	78	90	—	5,617
Infantry of the Line	14,797	5,072	3,347	2,587	2,645	2,753	1,983	1,018	1,430	1,649	819	891	1,138	793	517	700	1,770	2,225	3,208	1,852	1,116	496	51	52,857
Army Service Corps	326	215	145	64	197	168	347	90	114	154	75	51	62	48	47	36	111	86	199	119	124	64	—	2,842
Army Hospital Corps	—	40	106	97	152	53	39	47	26	43	33	28	52	30	29	39	75	40	72	43	83	52	—	1,179
Total	24,450	9,967	7,095	5,019	5,110	5,479	4,470	2,242	2,851	3,154	1,801	1,687	1,757	1,430	1,188	1,700	3,027	3,568	5,177	2,930	2,403	1,341	51	97,897*
IN THE COLONIES.																								
Royal Artillery	60	286	379	292	385	581	306	155	165	245	112	54	10	38	36	92	62	90	77	31	47	8	—	3,511
Royal Engineers	10	13	127	106	164	113	96	74	79	81	95	40	26	18	20	36	22	26	48	10	25	10	—	1,239
Infantry of the Line	837	1,409	2,446	1,697	1,422	1,910	1,671	627	792	628	314	270	374	191	93	134	397	595	761	417	165	37	415	17,602
Colonial Corps	160	138	227	245	124	262	211	89	81	111	53	34	32	28	27	23	32	24	29	26	10	28	64†	2,058
Army Service Corps	—	3	—	—	8	10	44	9	9	3	7	6	7	5	4	4	6	11	11	3	1	—	—	151
Army Hospital Corps	—	—	1	8	19	22	—	23	34	24	21	12	4	8	9	21	12	11	14	—	—	—	—	243
Total	1,067	1,849	3,180	2,348	2,122	2,898	2,328	977	1,160	1,092	602	416	453	288	189	310	531	757	940	487	248	83	479	24,804
IN INDIA.																								
Cavalry of the Line	18	130	212	136	239	318	382	231	172	196	254	169	64	80	83	44	112	113	198	231	34	43	252	3,711
Royal Artillery	214	341	920	692	784	1,251	1,070	741	672	820	654	286	306	311	281	602	521	473	401	251	152	77	—	11,820
Royal Engineers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	2
Infantry of the Line	669	1,776	3,202	2,822	3,039	3,973	4,883	2,481	3,254	2,541	1,674	1,436	1,396	851	580	666	1,355	1,808	2,477	1,197	377	341	843	43,641
Total	901	2,247	4,334	3,650	4,062	5,542	6,335	3,453	4,098	3,557	2,582	1,891	1,766	1,242	944	1,312	1,988	2,394	3,077	1,679	563	462	1,095	59,174
General Total	26,418	14,063	14,609	11,017	11,294	13,919	13,133	6,672	8,109	7,803	4,985	3,994	3,976	2,960	2,321	3,322	5,546	6,719	9,194	5,096	3,214	1,886	1,625	181,875

* Including regiments on passage to and from India and the Colonies.
† Including a company of Gun Lascars at Hong Kong.

TABLE 42.—PAST SERVICES of the Non-commissioned Officers and Men of the different arms, at Home, in the Colonies, and in India, on the 1st January 1877, who were enlisted for *Short Service* under the Army Enlistment Act of 1870.

Corps.	AT HOME.							IN THE COLONIES.							IN INDIA.							TOTAL.
	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	
Household Cavalry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cavalry of the Line	1,636	934	421	1	—	—	2,992	—	—	—	—	—	—	—	2	86	72	2	—	—	162	3,154
Royal Artillery	3,611	1,232	386	5	—	—	5,234	30	69	74	—	—	—	173	—	49	28	—	—	—	77	5,484
Royal Engineers	562	344	166	—	—	—	1,072	—	8	59	—	—	—	67	—	—	—	—	—	—	—	1,139
Foot Guards	969	354	273	197	275	278	2,346	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,346
Infantry of the Line	13,402	4,163	2,710	2,128	2,191	1,995	26,589	711	1,160	2,208	1,526	1,252	1,179	8,036	472	1,524	2,818	2,357	2,549	1,973	11,693	46,318
Colonial Corps	—	—	—	—	—	—	—	4	2	1	4	3	—	14*	—	—	—	—	—	—	—	14
Army Service Corps	156	106	47	25	81	58	473	—	—	—	—	5	3	8	—	—	—	—	—	—	—	481
Army Hospital Corps	—	22	84	76	115	25	322	—	—	1	8	19	22	50	—	—	—	—	—	—	—	372
General Total	20,336	7,155	4,087	2,432	2,662	2,356	39,028	745	1,239	2,343	1,538	1,279	1,204	8,348	474	1,659	2,918	2,359	2,549	1,973	1,1932	59,308

* Gun Lascars at Ceylon enlisted under special conditions.

TABLE 43.—TERMS of ENGAGEMENT of the Non-Commissioned Officers and Men of the different arms on the 1st January 1877, at Home, in India, and in the Colonies.

Corps.	Unlimited Service.					Long Service (1st Period).					Re-engaged Men.					Short Service.					Not reported.	Total.
	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.		
AT HOME.																						
Household Cavalry	3	—	—	—	3	73	20	—	831	924	86	7	—	187	280	—	—	—	—	—	—	1,207
Cavalry of the Line	2	—	—	—	2	357	157	448	5,447	6,409	676	20	199	1,756	2,651	2	1	13	2,976	2,992	—	12,054
Royal Artillery	9	—	—	1	10	303	189	712	7,137	8,341	1,003	20	537	3,357	4,917	—	—	6	5,228	5,234	—	18,502
Royal Engineers	—	—	—	1	1	71	59	277	1,104	1,511	404	2	166	483	1,055	—	1	—	1,071	1,072	—	3,639
Foot Guards	1	—	—	1	2	80	101	125	1,754	2,060	243	22	68	876	1,209	8	7	85	2,246	2,346	—	5,617
Infantry of the Line	6	—	—	8	14	591	797	778	7,954	10,120	2,829	362	1,447	11,445	16,083	268	190	1,012	25,119	26,589	51	52,857
Army Service Corps	—	—	—	—	—	52	21	170	1,081	1,324	352	2	169	522	1,045	2	—	17	454	473	—	2,842
Army Hospital Corps	—	—	—	—	—	54	—	45	164	263	143	—	179	272	594	5	—	19	298	322	—	1,179
Total	21	—	—	11	32	1,581	1,344	2,555	25,472	30,952	5,736	435	2,765	18,898	27,884	285	199	1,152	37,392	39,028	51	97,897*
IN THE COLONIES.																						
Royal Artillery	—	—	1	—	1	72	51	177	2,331	2,631	140	6	45	515	706	—	—	3	170	173	—	3,511
Royal Engineers	—	—	—	—	—	31	27	118	719	895	102	—	35	140	277	—	—	—	67	67	—	1,239
Infantry of the Line	1	—	—	—	1	206	226	311	4,040	4,783	720	115	272	3,260	4,367	82	60	337	7,557	8,036	415	17,602
Colonial Corps	—	—	—	1	1	42	38	88	1,434	1,602	98	11	38	230	377	1	—	—	13	14‡	64†	2,058
Army Service Corps	—	—	—	—	—	18	—	21	39	78	45	—	6	14	65	—	—	1	7	8	—	151
Army Hospital Corps	—	—	—	—	—	14	—	18	82	114	44	—	15	20	79	2	—	6	42	50	—	243
Total	1	—	1	1	3	383	342	733	8,645	10,103	1,149	132	411	4,179	5,871	85	60	347	7,856	8,348	479	24,804
IN INDIA.																						
Cavalry of the Line	1	—	—	—	1	81	35	92	1,836	2,044	202	15	90	945	1,252	—	1	—	161	162	252	3,711
Royal Artillery	1	—	—	—	1	214	142	451	6,143	6,950	547	50	453	3,742	4,792	—	—	2	75	77	—	11,820
Royal Engineers	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—	—	—	—	—	—	2
Infantry of the Line	2	—	—	3	5	537	443	665	12,260	13,905	1,668	333	942	14,252	17,195	99	64	309	11,221	11,693	843	43,641
Total	4	—	—	3	7	832	620	1,208	20,239	22,899	2,419	398	1,485	18,939	23,241	99	65	311	11,457	11,932	1,095	59,174
General Total	26	—	1	15	42	2,796	2,306	4,496	54,356	63,954	9,304	965	4,661	42,016	56,946	469	324	1,810	56,705	59,308	1,625	181,875

* Including regiments on passage to and from India and the colonies. † Including a company of Gun Lascars at Hong Kong.
‡ Gun Lascars at Ceylon enlisted under special conditions.

TABLE 44.—NUMBER of MEN serving on the 1st January 1877 who were in possession of GOOD CONDUCT MEDALS, showing the different ranks, and the number in each arm of the service.

Corps.	Medals and Annuities.	Medals and Gratuities.				Medals without Gratuities.
		Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.	
Household Cavalry	1	27	—	61	88	Under the revised regulations a gratuity has been awarded to the whole of the men previously in possession of the medal without gratuity.
Cavalry of the Line	2	231	44	305	580	
Royal Artillery	3	388	105	506	999	
Royal Engineers	—	145	30	74	249	
Foot Guards	1	33	4	53	90	
Infantry of the Line	2	654	114	1,162	1,930	
Colonial Corps	—	9	2	12	23	
Army Service Corps	—	57	11	30	98	
Army Hospital Corps	—	68	32	20	120	
General Total	9	1,612	342	2,223	4,177	—

TABLE 45.—NUMBER of MEN serving on the 1st January 1877 who were in possession of GOOD CONDUCT BADGES, showing the different arms of the service, and the number of badges.

Corps.	One badge.	Two badges.	Three badges.	Four badges.	Five badges.	Six badges.	Total.
Household Cavalry	249	252	89	67	33	1	691
Cavalry of the Line	3,359	2,264	864	1,030	40	2	7,499
Royal Artillery	7,726	4,896	2,400	1,776	193	2	16,493
Royal Engineers	1,084	843	314	261	37	1	2,540
Foot Guards	988	524	216	258	22	1	2,009
Infantry of the Line	22,873	15,333	7,010	5,563	97	2	50,878
Colonial Corps	454	246	65	33	7	—	805
Army Service Corps	559	497	194	258	11	—	1,519
Army Hospital Corps	416	166	138	242	49	—	1,011
General Total	37,708	24,461	11,290	9,488	499	9	83,445

TABLE 46.—COMPARATIVE statement of the Past SERVICES of the Non-Commissioned Officers and Men on the 1st January 1865, and in each year from 1873 to 1877.

Past Services.	Effectives.					
	1st Jan. 1865.	1st Jan. 1873.	1st Jan. 1874.	1st Jan. 1875.	1st Jan. 1876.	1st Jan. 1877.
Under 1 year -	14,505	17,109	14,336	18,981	16,530	26,418
1 to 2 years -	9,119	19,784	13,595	13,061	15,104	14,063
2 to 3 „ -	9,116	17,297	17,279	12,451	11,699	14,609
3 to 4 „ -	29,128	11,359	17,108	15,020	11,825	11,017
4 to 5 „ -		10,800	9,069	16,701	14,297	11,294
5 to 6 „ -	45,072	10,129	9,532	7,924	15,358	13,919
6 to 7 „ -		8,168	10,179	9,446	7,726	13,133
7 to 8 „ -	52,249	8,184	7,764	9,421	8,710	6,672
8 to 9 „ -		7,260	7,213	6,894	8,615	8,109
9 to 10 „ -		5,448	7,035	6,394	6,787	7,803
10 to 11 „ -		4,481	4,584	4,847	4,557	4,985
11 to 12 „ -	11,137	5,892	3,552	3,894	4,584	3,994
12 to 13 „ -		8,389	4,610	2,791	3,113	3,976
13 to 14 „ -		9,114	6,999	3,838	2,660	2,960
14 to 15 „ -	5,688	11,590	8,318	6,399	3,688	2,321
15 to 16 „ -		5,745	11,341	7,912	6,122	3,322
16 to 17 „ -	11,582	5,044	6,390	10,301	7,215	5,546
17 to 18 „ -		6,659	4,385	5,928	9,786	6,719
18 to 19 „ -		4,034	6,259	3,915	5,640	9,194
19 to 20 „ -		2,125	4,147	5,368	3,291	5,096
20 to 21 „ -	4,298	1,582	2,182	4,040	5,362	3,214
Over 21 „ -		1,162	1,123	1,074	1,739	1,886
Not reported -	11,277	1,213	1,337	1,676	1,448	1,625
Total - -	203,171	182,568	178,337	178,276	175,856	181,875
	Proportion per 1,000 men.					
Under 1 year -	76	94	81	107	94	147
1 to 2 years -	48	109	77	74	87	78
2 to 3 „ -	47	95	98	71	67	81
3 to 5 „ -	152	122	148	180	150	124
5 to 11 „ -	507	241	261	254	297	303
11 to 16 „ -	88	225	197	141	116	92
Over 16 „ -	82	114	138	173	189	175

TABLE 47.—COMPARATIVE statement of the Terms of Engagement of the Non-Commissioned Officers and Men on the 1st January in each year from 1873 to 1877.

Date.	Unlimited Service.					Long Service (1st Period).					Re-engaged Men.					Short Service.					Not reported.	Total.
	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.		
1st January 1873 - -	103	12	23	190	328	2,285	2,533	4,807	81,438	91,063	10,104	1,199	5,923	54,801	72,027	11	23	135	17,768	17,937	1,213	182,568
1st January 1874 - -	96	3	7	62	168	2,350	2,427	4,856	73,835	83,486	10,000	1,164	5,535	51,815	68,514	37	72	490	24,233	24,832	1,337	178,337
1st January 1875 - -	50	1	6	35	92	2,434	2,385	4,871	69,302	78,992	9,823	1,112	5,113	47,788	63,836	132	132	1,011	32,405	33,680	1,676	178,276
1st January 1876 - -	33	1	3	25	62	2,607	2,367	4,651	61,813	71,438	9,633	1,024	4,835	45,362	60,854	272	282	1,527	39,993	42,054	1,448	175,856
1st January 1877 - -	26	—	1	15	42	2,796	2,306	4,496	54,356	63,954	9,304	965	4,661	42,016	56,946	469	324	1,810	56,705	59,308	1,625	181,875

TABLE 48.—COMPARATIVE number of men in possession of GOOD CONDUCT MEDALS on the 1st January in each year from 1873 to 1877.

Date.	Medals and Annuities.	Medals and Gratuities.				Medals without Gratuities.			
		Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.	Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.
1st January 1873	8	695	83	537	1,315	96	28	208	332
1st January 1874	8	698	98	670	1,466	99	23	220	342
1st January 1875	9	667	87	682	1,436	106	19	294	419
1st January 1876	7	526	84	579	1,189	96	18	187	301
1st January 1877	9	1,612	342	2,223	4,177	—	—	—	—

N.B.—By Royal Warrant of 14th August 1875, the regulations for the issue of Good Conduct Medals were revised, and the grant of Medals without Gratuities was discontinued.

TABLE 49.—COMPARATIVE number of men in possession of GOOD CONDUCT BADGES on the 1st January 1870 and in each year from 1873 to 1877.

Date.	One Badge.	Two Badges.	Three Badges.	Four Badges.	Five Badges.	Six Badges.	Total.
1st January 1870	34,801	29,607	10,822	3,154	712	*165	79,261
1st January 1873	39,988	22,752	18,378	4,893	284	116	86,411
1st January 1874	41,584	22,736	17,187	6,485	215	8	88,215
1st January 1875	40,543	23,030	14,979	8,026	199	14	86,791
1st January 1876	40,146	22,697	13,910	8,881	316	13	85,963
1st January 1877	37,708	24,461	11,290	9,488	489	9	83,445

* Including one man with seven badges.
N.B.—The regulations for the issue of Good Conduct Pay were revised by Royal Warrant of 2nd June 1870.

PART VI.—AGES, HEIGHTS,

TABLE 50.—AGES of the Non-Commissioned Officers and Men on the showing the different

Corps.	Under 18 years.	18 to 19.	19 to 20.	20 to 21.	21 to 22.	22 to 23.	23 to 24.	24 to 25.	25 to 26.	26 to 27.	27 to 28.	28 to 29.
AT HOME:												
Household Cavalry -	14	19	49	68	101	74	76	93	51	64	63	72
Cavalry of the Line -	224	506	1,001	1,147	999	1,029	941	847	630	538	449	394
Royal Artillery -	223	462	1,286	2,254	1,842	1,411	1,193	1,287	1,126	904	723	561
Royal Engineers -	124	122	218	218	220	219	212	251	227	179	132	130
Foot Guards - -	133	287	408	465	417	416	429	481	383	294	241	212
Infantry of the Line	1,380	4,660	5,451	4,512	3,748	3,392	3,076	2,881	2,204	1,843	1,702	1,343
Army Service Corps -	46	110	151	144	114	160	159	239	181	150	147	128
Army Hospital Corps	—	20	71	59	52	43	44	63	80	73	70	56
Total - -	2,144	6,186	8,635	8,867	6,993	6,744	6,130	6,142	4,882	4,045	3,527	2,896
IN THE COLONIES:												
Royal Artillery -	31	97	163	195	223	260	373	301	287	316	214	143
Royal Engineers -	23	6	8	24	45	62	81	88	87	99	104	79
Infantry of the Line	226	302	753	1,307	1,477	1,544	1,588	1,765	1,398	1,023	807	611
Colonial Corps -	27	60	73	114	129	146	166	194	184	185	116	103
Army Service Corps -	—	—	1	—	—	4	7	17	19	10	6	10
Army Hospital Corps	—	—	7	5	18	10	10	13	11	14	18	12
Total - -	307	465	1,005	1,645	1,892	2,026	2,225	2,378	1,986	1,647	1,265	958
IN INDIA:												
Cavalry of the Line -	14	10	24	83	117	146	269	321	304	255	236	208
Royal Artillery -	50	82	189	406	542	583	803	872	810	802	860	720
Royal Engineers -	—	—	—	—	—	—	—	—	—	—	—	—
Infantry of the Line	322	210	511	1,511	2,185	2,526	3,063	4,179	3,817	3,237	2,779	2,428
Total - -	386	302	724	2,000	2,844	3,255	4,135	5,372	4,931	4,294	3,875	3,356
General Total -	2,837	6,953	10,364	12,512	11,729	12,025	12,490	13,892	11,799	9,986	8,667	7,210
Proportion per 1,000	16	39	58	69	65	67	69	77	65	56	48	40

AND CHEST MEASUREMENTS.

1st January 1877, at Home, in India, and in the Colonies, respectively, arms of the service.

29 to 30.	30 to 31.	31 to 32.	32 to 33.	33 to 34.	34 to 35.	35 to 36.	36 to 37.	37 to 38.	38 to 39.	39 to 40.	40 to 50.	Upwards of 50 years.	Not reported.	Total.
54	50	37	49	34	32	37	27	25	19	21	70	8	—	1,207
304	279	240	196	138	165	202	356	398	392	265	414	—	—	12,054
472	518	320	403	426	385	412	506	461	453	551	813	10	—	18,502
120	147	111	92	92	94	84	88	100	83	116	259	1	—	3,639
169	171	120	106	131	99	119	121	88	89	73	155	10	—	5,617
1,246	1,207	1,014	885	904	1,204	1,579	1,990	1,896	1,521	1,176	1,963	29	51	52,857
84	82	77	43	56	84	56	92	121	114	93	208	3	—	2,842
35	40	38	37	45	43	40	38	49	82	50	39	12	—	1,179
2,434	2,494	1,957	1,811	1,826	2,106	2,529	3,218	3,138	2,753	2,345	3,921	73	51	97,897*
116	109	105	73	61	72	65	58	62	66	70	51	—	—	3,511
86	84	53	51	33	33	32	33	29	24	26	42	—	—	1,239
504	484	322	217	233	259	389	512	527	326	196	415	2	415	17,602
71	74	66	43	35	40	38	32	24	25	11	38	—	64†	2,058
14	6	4	7	5	7	9	7	9	2	1	6	—	—	151
12	13	12	13	16	17	15	7	8	5	4	3	—	—	243
803	770	562	404	383	428	548	649	659	448	308	562	2	479	24,804
188	161	106	117	89	75	97	146	150	126	92	125	—	252	3,711
521	470	438	469	423	510	423	401	398	342	346	359	1	—	11,820
—	—	—	—	—	—	—	—	1	—	—	1	—	—	2
1,980	1,828	1,491	1,163	1,016	1,100	1,351	1,716	1,425	958	728	1,251	23	843	43,641
2,689	2,459	2,035	1,749	1,528	1,685	1,871	2,263	1,974	1,426	1,166	1,736	24	1,095	59,174
5,976	5,723	4,554	3,964	3,737	4,219	4,048	6,130	5,771	4,627	3,819	6,219	99	1,625	181,875
33	32	25	22	21	23	27	34	32	26	21	35		—	1,000

* Including regiments on passage to and from India and the Colonies.
† Including a company of Gun Lascars at Hong Kong.

TABLE 51.—HEIGHTS of the Non-Commissioned Officers and Men on the 1st January 1877, showing the different arms of the service.

Corps.	Under 5 feet 5 inches.	5 feet 5 inches to 5 feet 6 inches.	5 feet 6 inches to 5 feet 7 inches.	5 feet 7 inches to 5 feet 8 inches.	5 feet 8 inches to 5 feet 9 inches.	5 feet 9 inches to 5 feet 10 inches.	5 feet 10 inches to 5 feet 11 inches.	5 feet 11 inches to 6 feet.	6 feet and upwards.	Not reported.	Total.
Household Cavalry	8	11	18	15	19	23	83	339	691	—	1,207
Cavalry of the Line	322	380	2,047	3,946	3,840	2,656	1,533	564	225	252	15,765
Royal Artillery	3,728	4,180	3,841	6,128	6,382	4,540	2,647	1,502	885	—	33,833
Royal Engineers	246	505	1,191	1,145	755	494	320	122	102	—	4,880
Foot Guards	101	40	63	430	1,480	1,604	943	495	461	—	5,617
Infantry of the Line	7,877	19,813	28,038	23,436	15,462	9,224	5,227	2,425	1,289	1,309	114,100
Colonial Corps	100	273	368	404	331	257	132	84	45	64*	2,058
Army Service Corps	573	625	593	477	330	207	104	57	27	—	2,993
Army Hospital Corps	80	170	175	208	256	185	146	110	92	—	1,422
General Total	13,035	25,997	36,334	36,189	28,855	19,190	11,135	5,698	3,817	1,625	181,875
Proportion per 1,000 men	72	144	202	201	160	106	62	32	21	—	1,000

* Including a Company of Gun Lascars at Hong Kong.

TABLE 52.—CHEST MEASUREMENTS of the Non-Commissioned Officers and Men serving on the 1st January 1877, showing the different arms of the service.

Corps.	Under 33 inches.	33 inches to 34 inches.	34 inches to 35 inches.	35 inches to 36 inches.	36 inches to 37 inches.	37 inches to 38 inches.	38 inches to 39 inches.	39 inches to 40 inches.	40 inches and over.	Not reported.	Total.
Household Cavalry -	10	16	45	60	143	225	251	237	220	—	1,207
Cavalry of the Line -	277	619	1,964	2,976	3,298	2,927	1,946	1,008	498	252	15,765
Royal Artillery - -	541	1,266	3,678	5,408	6,906	6,944	4,223	3,141	1,726	—	33,833
Royal Engineers - -	130	309	572	764	913	885	681	339	287	—	4,880
Foot Guards - -	170	155	476	866	1,063	1,164	881	488	354	—	5,617
Infantry of the Line -	2,536	6,382	13,921	20,673	24,917	20,925	12,995	6,604	3,751	1,396	114,100
Colonial Corps - -	99	226	379	366	403	244	227	31	19	64*	2,058
Army Service Corps -	32	66	238	406	586	684	561	213	207	—	2,993
Army Hospital Corps -	—	88	550	260	198	166	120	25	15	—	1,422
General Total -	3,795	9,127	21,823	31,779	38,427	34,164	21,885	12,086	7,077	1,712	181,875
Proportion per 1,000 men	21	51	121	176	213	190	122	67	39	—	1,000

* Including a Company of Gun Lascars at Hong Kong.

N.B.—In order to ensure uniformity of system throughout the service, instructions as to the mode of measurement were issued in G.O. 7 of 1876.

TABLE 53.—COMPARATIVE statement of the AGES of the Non-Commissioned Officers and Men serving in 1866, and in each year from 1871 to 1877.

Years.	Proportion per 1,000 men.								
	Under 18 years.	18 to 19 years.	19 to 20 years.	20 to 25 years.	25 to 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.
1866 Cavalry of the Line	14	80		304	369	148	57	28
1866 Infantry of the Line	18	115		275	356	151	74	11
1871	29	76	85	273	217	206	94	20
1873	20	49	86	317	208	191	107	22
1874	16	35	61	332	221	180	127	28
1875	17	30	50	343	220	156	149	35
1876	17	29	51	341	233	135	152	42
1877	16	39	58	347	242	123	140	35

	Abstract of the foregoing numbers.		
	Under 20 years.	20 to 30 years.	Over 30 years.
1866 Cavalry of the Line	94	673	233
1866 Infantry of the Line	133	631	236
1871	190	490	320
1873	155	525	320
1874	112	553	335
1875	97	563	340
1876	97	574	329
1877	113	589	298

TABLE 54.—COMPARATIVE statement of the HEIGHTS of the Non-Commissioned Officers and Men serving in 1866, and in each year from 1873 to 1877.

Years.	Proportion per 1,000 men.								
	Under 5 feet 5 inches.	5 feet 5 inches to 5 feet 6 inches.	5 feet 6 inches to 5 feet 7 inches.	5 feet 7 inches to 5 feet 8 inches.	5 feet 8 inches to 5 feet 9 inches.	5 feet 9 inches to 5 feet 10 inches.	5 feet 10 inches to 5 feet 11 inches.	5 feet 11 inches to 6 feet.	6 feet and upwards.
1866 Cavalry of the Line	10	26	101	285	250	169	97	46	16
1866 Infantry of the Line	95	173	223	189	138	88	54	23	17
1873	69	143	200	206	162	106	62	31	21
1874	62	138	196	206	168	113	63	32	22
1875	65	135	203	205	164	110	63	33	22
1876	68	137	200	204	165	109	62	33	22
1877	72	144	202	201	160	106	62	32	21

	Abstract of the foregoing numbers.	
	Under 5 feet 7 inches.	Over 5 feet 7 inches.
1866 Cavalry of the Line	137	863
1866 Infantry of the Line	491	509
1873	412	588
1874	396	604
1875	403	597
1876	405	595
1877	418	582

PART VII.—NATIONALITIES, RELIGIONS, AND EDUCATION.

TABLE 55.—NATIONALITIES of the Non-Commissioned Officers and Men on the 1st January 1877, showing the different arms of the service.

Corps.	English.	Scotch.	Irish.	Foreigners, &c.	Not reported.	Total.
Household Cavalry	944	173	89	1	—	1,207
Cavalry of the Line	12,500	952	2,026	35	252	15,765
Royal Artillery	24,887	2,494	6,280	172	—	33,833
Royal Engineers	3,797	482	522	79	—	4,880
Foot Guards	4,926	470	213	8	—	5,617
Infantry of the Line	72,937	9,388	30,149	317	1,309	114,100
Colonial Corps	23	2	9	1,960	64*	2,058
Army Service Corps	2,533	130	323	7	—	2,993
Army Hospital Corps	943	101	375	3	—	1,422
General Total	123,490	14,192	39,986	2,582	1,625	181,875
Proportion per 1,000 men exclusive of Colonial Corps	693	80	224	3	—	1,000

TABLE 56.—RELIGIOUS DENOMINATIONS of the Non-Commissioned Officers and Men on the 1st January 1877, showing the different arms of the service.

Corps.	Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.	Mahommedans, Hindoos, Jews, &c.	Not reported.	Total.
Household Cavalry	1,042	110	2	53	—	—	1,207
Cavalry of the Line	12,279	907	507	1,819	1	252	15,765
Royal Artillery	23,610	2,755	1,381	6,087	—	—	33,833
Royal Engineers	3,368	488	530	494	—	—	4,880
Foot Guards	4,891	432	61	233	—	—	5,617
Infantry of the Line	68,276	9,343	3,891	31,281	—	1,309	114,100
Colonial Corps	1,373	24	109	406	82	64*	2,058
Army Service Corps	2,137	212	309	335	—	—	2,993
Army Hospital Corps	982	95	56	289	—	—	1,422
General Total	117,958	14,366	6,846	40,997	83	1,625	181,875
Proportion per 1,000 men exclusive of Colonial Corps	654	80	38	228	—	—	1,000

* Including a Company of Gun Lascars at Hong Kong.

TABLE 57.—EDUCATIONAL ACQUIREMENTS of the Non-Commissioned Officers and Men on the 1st January 1877, showing the different arms of the service.

Corps.	Number who neither read nor write.	Number who read but cannot write.	Number who can only read and write.	Number better educated, *i.e.*, all who are not included in foregoing columns.	Not reported.	Total.
Household Cavalry -	5	2	394	806	—	1,207
Cavalry of the Line -	339	323	5,546	9,305	252	15,765
Royal Artillery - -	1,542	1,702	15,616	14,973	—	33,833
Royal Engineers -	—	6	449	4,425	—	4,880
Foot Guards - -	75	111	2,122	3,309	—	5,617
Infantry of the Line -	6,540	4,656	53,616	47,979	1,309	114,100
Colonial Corps - -	680	387	623	304	64*	2,058
Army Service Corps -	17	41	1,035	1,900	—	2,993
Army Hospital Corps -	—	—	320	1,102	—	1,422
General Total -	9,198	7,228	79,721	84,103	1,625	181,875
Proportion per 1,000 men exclusive of Colonial Corps -	48	38	444	470	—	1,000

* Including a Company of Gun Lascars at Hong Kong.

TABLE 58.—NATIONALITIES of the Non-Commissioned Officers and Men at various periods from 1868 to 1877, exclusive of the West India regiments and Colonial corps.

Period.	English.	Scotch.	Irish.	Foreigners, &c.	Not reported.	Total.	Proportion per 1,000 men.			
							English.	Scotch.	Irish.	Foreigners, &c.
1 Jan. 1868 -	106,810	17,011	55,583	879	2,507	182,790	593	94	308	5
1 May 1869 -	103,426	16,372	50,331	940	1,153	172,222	605	96	294	5
1 Jan. 1870 -	101,909	16,163	47,151	849	2,838	168,910	614	97	284	5
1 Jan. 1871 -	No returns compiled.									
1 Mar. 1872 -	117,701	15,885	44,092	Not reported.	3,293	180,971	663	89	248	Not reported.
1 Jan. 1873 -	120,134	15,254	42,284	679	1,032	179,383	674	85	237	4
1 Jan. 1874 -	118,848	14,507	41,124	650	972	176,101	679	83	235	3
1 Jan. 1875 -	119,246	13,915	40,626	584	1,646	176,017	684	80	233	3
1 Jan. 1876 -	118,701	13,813	39,360	571	1,305	173,750	689	80	228	3
1 Jan. 1877 -	123,467	14,190	39,977	622	1,561	179,817	693	80	224	3

N.B.—Men reported as born at sea, in India, and in the Colonies, are included under the head of "Foreigners, &c."

TABLE 59.—RELIGIOUS DENOMINATIONS of the Non-Commissioned Officers and Men at various periods from 1861 to 1877, exclusive of the West India regiments and Colonial corps.

Year.	Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.	Not reported.	Total.	Proportion per 1,000 men.			
							Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.
1st January 1861	124,252	22,947	Included with Church of England.	58,630	3,840	209,669	604	111	Included with Church of England.	285
1st January 1862	119,223	20,844		56,104	2,544	198,715	608	106		286
1st January 1863	116,495	23,109	3,549	58,623	2,431	204,207	577	114	18	291
1st January 1864	110,255	21,016	5,280	58,021	3,413	197,985	567	108	27	298
1st January 1865	No returns compiled.									
1st January 1866										
1st January 1867										
1st February 1868	106,135	17,433	5,669	51,889	1,357	182,483	586	96	31	287
1st April 1869	101,373	18,185	5,962	47,484	1,933	174,937	586	105	34	275
1st February 1870	98,754	16,769	5,751	43,590	3,368	168,232	599	102	35	264
1st January 1871	106,221	16,429	6,111	42,295	3,974	175,030	621	96	36	247
1st January 1872	No returns compiled.									
1st January 1873	115,621	15,782	5,962	40,986	1,032	179,383	648	89	33	230
1st January 1874	114,030	15,166	6,446	39,488	971	176,101	651	86	37	226
1st January 1875	113,614	14,629	6,401	39,727	1,646	176,017	651	84	37	228
1st January 1876	112,876	14,320	6,224	38,971	1,359	173,750	656	82	36	226
1st January 1877	116,585	14,342	6,737	40,591	1,562	179,817	654	80	38	228

TABLE 60.—EDUCATIONAL ACQUIREMENTS of the Non-Commissioned Officers and Men at various periods from 1861 to 1877, exclusive of the West India regiments and Colonial corps.

Year.	Number who neither read nor write.	Number who read but cannot write.	Number who can read and write.	Number of superior education.	Not reported.	Total.	Proportion per 1,000 men.			
							Number who neither read nor write.	Number who read but cannot write.	Number who can read and write.	Number of superior education.
1st January 1861	34,884	36,283	99,145	13,692	25,665	209,669	190	197	539	74
									613	
1st January 1862	No returns compiled.									
1st January 1863										
1st January 1864	22,570	29,054	107,509	8,717	30,135	197,985	134	173	641	52
									693	
1st January 1865	23,726	30,271	116,483	12,452	12,490	195,422	130	165	637	68
									705	
1st January 1866	21,731	28,607	116,162	10,930	10,429	187,859	122	161	655	62
									717	
1st January 1867	No returns compiled.									
1st January 1868	16,010	17,924	124,893	10,387	13,576	182,790	95	106	738	61
									799	
1st January 1869	15,207	15,263	127,959	10,283	10,176	178,888	90	90	759	61
									820	
1st January 1870	12,850	13,052	128,763	9,825	4,420	168,910	78	79	783	60
									843	
1st January 1871	No returns compiled.									
1st January 1872	11,852	10,964	125,442	23,593	8,473	180,324	69	64	730	137
									867	
1st January 1873	10,724	9,543	99,910	58,179	1,027	179,383	60	54	560	326
									886	
1st January 1874	9,411	8,036	87,404	70,265	985	176,101	54	46	499	401
									900	
1st January 1875	9,163	7,803	84,417	72,988	1,646	176,017	53	45	484	418
									902	
1st January 1876	8,540	7,614	78,748	77,490	1,358	173,750	50	44	456	450
									906	
1st January 1877	8,518	6,841	79,698	83,799	1,561	179,817	48	38	444	470
									914	

N.B.—On the 1st January 1871, the heading of column 4 was changed to "Number of *better* education," and on the 1st January 1873, it was again altered, and now stands as follows, viz., "Number who are better educated, *i.e.*, all who are not included in foregoing columns."

PART VIII.—TROOP AND BATTERY HORSES.

TABLE 61.—NUMBER of TROOP or BATTERY HORSES in the different arms of the service on the 1st of each month during 1876 and the average strength during the year, distinguishing those on the British and Indian Establishments.

Months.	British Establishment.							Indian Establishment.				All Arms.
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Army Service Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	
1876.												
1st January - -	837	6,777	1,793	4,080	420	1,060	14,967	3,418	2,610	4,716	10,744	25,711
1st February -	836	6,788	1,795	4,100	421	1,083	15,023	3,409	2,608	4,706	10,723	25,746
1st March - -	838	6,776	1,803	4,129	419	1,084	15,049	3,364	2,601	4,675	10,640	25,689
1st April - -	839	6,785	1,810	4,164	419	1,086	15,103	3,775	2,594	4,686	11,055	26,158
1st May - -	820	6,779	1,812	4,152	419	1,085	15,067	3,782	2,605	4,692	11,079	26,146
1st June - -	818	6,776	1,791	4,145	414	1,093	15,037	3,883	2,654	4,813	11,350	26,387
1st July - -	821	6,756	1,796	4,149	422	1,091	15,035	3,884	2,666	4,820	11,370	26,405
1st August - -	838	6,776	1,806	4,167	422	1,090	15,099	3,937	2,594	4,754	11,285	26,384
1st September -	817	6,783	1,819	4,130	422	1,080	15,051	3,835	2,549	4,677	11,061	26,112
1st October - -	823	6,758	1,793	4,135	422	1,076	15,007	3,785	2,549	4,677	11,011	26,018
1st November -	842	6,795	1,799	4,156	393	1,042	15,027	3,691	2,551	4,690	10,932	25,959
1st December - -	847	6,809	1,790	4,134	416	1,058	15,054	3,687	2,559	4,699	10,945	25,999
	9,976	81,358	21,607	49,641	5,009	12,928	180,519	44,450	31,140	56,605	132,195	312,714
Average during 1876	831	6,780	1,801	4,137	417	1,077	15,043	3,704	2,595	4,717	11,016	26,059

TABLE 62.—EFFECTIVE STRENGTH and DISTRIBUTION of the HORSES, according to the latest returns received on the 1st January 1877, specifying those on the British and Indian Establishments, and the number required to complete each arm of the service.

	BRITISH ESTABLISHMENT.							INDIAN ESTABLISHMENT.				All Arms.
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Army Service Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	
AT HOME.												
England	845	4,103	1,353	3,432	416	892	11,041	—	—	—	—	11,041
Scotland	—	320	—	92	—	—	412	—	—	—	—	412
Ireland	—	2,420	441	622	—	184	3,667	—	—	—	—	3,667
	845	6,843	1,794	4,146	416	1,076	15,120	—	—	—	—	15,120
Cape of Good Hope	—	—	—	23	—	—	23	—	—	—		23
EAST INDIES.												
Bengal	—	—	—	—	—	—	—	2,421	1,856	2,428	6,705	6,705
Bombay	—	—	—	—	—	—	—	406	355	1,106	1,867	1,867
Madras	—	—	—	—	—	—	—	391	363	1,169	1,923	1,923
	—	—	—	—	—	—	—	3,218	2,574	4,703	10,495	10,495
General Total	845	6,843	1,794	4,169	416	1,076	15,143	3,218	2,574	4,703	10,495	25,638
Establishment	825	6,992	1,808	4,156	422	1,095	15,298	3,925	2,670	4,730	11,325	26,623
Wanting to complete	—	149	14	—	6	19	155	707	96	27	830	985
Supernumeraries	20	—	—	13	—	—	—	—	—	—	—	—

N.B.—At the above date the Cavalry in India was one regiment below its establishment, the 16th Lancers having disposed of its horses on embarkation for this country.

TABLE 63.—INCREASE and DECREASE of the HORSES of each arm of the service on the British Establishment reported during the year 1876.

Corps.	Effectives on the 1st January 1876.	Increase.			Decrease.					Effectives on the 1st January 1877.
		Recruited.	Other causes.	Total.	Dead.	Cast.	Sold to Officers.	Other causes.	Total.	
Household Cavalry -	837	89	—	89	16	64	1	—	81	845
Cavalry of the Line -	6,777	694	12	706	131	468	33	8	640	6,843
Royal Horse Artillery -	1,793	112	63	175	18	131	1	24	174	1,794
Royal Artillery - -	4,080	493	18	511	82	285	1	54	422	4,169
Royal Engineers -	420	35	—	35	5	34	—	—	39	416
Army Service Corps -	1,060	93	8	101	11	73	—	1	85	1,076
Total -	14,967	1,516	101*	1,617	263	1,055	36	87*	1,441	15,143

TABLE 64.—INCREASE and DECREASE of the HORSES on the British Establishment reported during each month of the year 1876.

Months.	Effectives on the 1st day of each month.	Increase.			Decrease.					Effectives on the last day of each month.
		Recruited.	Other causes.	Total Increase.	Dead.	Cast.	Sold to Officers.	Other causes.	Total Decrease.	
January -	14,967	86	9	95	13	19	—	7	39	15,023
February -	15,023	52	5	57	22	3	—	6	31	15,049
March -	15,049	91	10	101	20	17	2	8	47	15,103
April - -	15,103	23	2	25	17	41	2	1	61	15,067
May - -	15,067	81	19	100	26	85	7	12	130	15,037
June - -	15,037	81	7	88	13	71	3	3	90	15,035
July - -	15,035	153	14	167	28	56	6	13	103	15,099
August - -	15,099	74	8	82	21	100	3	6	130	15,051
September -	15,051	115	8	123	16	140	3	8	167	15,007
October -	15,007	367	3	370	33	309	7	1	350	15,027
November -	15,027	242	6	248	28	185	1	7	221	15,054
December -	15,094	151	10	161	26	29	2	15	72	15,143
Total -	—	1,516	*101	1,617	263	1,055	36	*87	1,441	—

* Principally interchanges between the different arms of the service.

TABLE 65.—AGES of the HORSES in each arm of the service on the 1st January 1877, specifying those on the British and Indian Establishments.

Corps.	British Establishment.						Indian Establishment.				
	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Not reported.	Total.	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Total.
Household Cavalry	129	251	228	237	—	845	—	—	—	—	—
Cavalry of the Line	1,256	2,028	2,368	1,175	16	6,843	118	1,155	1,170	815	3,258
Royal Artillery	522	2,298	2,590	553	—	5,963	207	2,719	2,893	1,458	7,277
Royal Engineers	32	112	188	84	—	416	—	—	—	—	—
Army Service Corps	68	265	398	345	—	1,076	—	—	—	—	—
All Arms	2,007	4,954	5,772	2,394	16	15,143	325	3,874	4,063	2,273	10,535

TABLE 66.—SIZES of the HORSES in each arm of the service on the 1st January 1877, specifying those on the British and Indian Establishments.

Corps.	British Establishment.						Indian Establishment.				
	14½ hands.	15 hands.	15½ hands.	16 hands.	Not reported.	Total.	14½ hands.	15 hands.	15½ hands.	16 hands.	Total.
Household Cavalry	—	14	514	317	—	845	—	—	—	—	—
Cavalry of the Line	35	1,778	4,444	570	16	6,843	1,877	1,054	285	42	3,258
Royal Artillery	10	523	4,351	1,079	—	5,963	2,176	2,840	2,069	192	7,277
Royal Engineers	5	280	130	1	—	416	—	—	—	—	—
Army Service Corps	2	328	672	74	—	1,076	—	—	—	—	—
All Arms	52	2,923	10,111	2,041	16	15,143	4,053	3,894	2,354	234	10,535

TABLE 67.—EFFECTIVE STRENGTH of the HORSES in each arm of the service, according to the latest returns received on the 1st January in each year from 1861 to 1877, specifying those on the British and Indian Establishments.

Year.	British Establishment.								Indian Establishment.				All Arms.
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Military Train and Army Service Corps.	Colonial Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	
1861	853	7,130	1,093	2,832	108	984	604	13,604	5,792	—	—	5,792	19,396
1862	840	7,131	1,165	2,674	107	990	603	13,510	4,464	—	—	4,464	17,974
1863	849	7,095	1,442	2,990	109	1,014	644	14,143	5,093	3,691	5,626	14,410	28,553
1864	848	6,695	1,442	2,910	171	867	581	13,514	4,979	3,296	5,513	13,788	27,302
1865	853	6,189	1,342	2,941	258	1,065	522	13,170	5,163	3,267	5,500	13,930	27,100
1866	832	6,117	1,468	2,554	285	1,029	401	12,686	5,056	3,249	4,822	13,127	25,813
1867	834	6,021	1,443	2,423	295	1,077	390	12,483	4,980	3,324	4,725	13,029	25,512
1868	844	6,017	1,468	2,441	289	901	361	12,321	4,337	3,347	4,662	12,346	24,667
1869	848	6,085	1,468	2,598	299	973	306	12,577	3,978	3,463	4,730	12,171	24,748
1870	847	5,720	1,242	2,086	198	948	275	11,316	4,059	3,398	4,561	12,018	23,334
1871	851	6,800	1,566	2,258	360	1,095	—	12,930	3,788	3,360	4,596	11,744	24,674
1872	854	6,747	1,883	3,587	413	1,082	—	14,566	3,809	2,596	4,653	11,058	25,624
1873	838	6,745	1,909	3,924	410	1,098	—	14,924	3,404	2,480	4,609	10,493	25,417
1874	824	6,708	1,850	4,005	413	1,086	—	14,886	3,313	2,596	4,704	10,613	25,499
1875	839	6,621	1,901	3,975	418	1,073	—	14,827	3,328	2,564	4,613	10,505	25,332
1876	837	6,777	1,793	4,080	420	1,060	—	14,967	3,418	2,610	4,716	10,744	25,711
1877	845	6,843	1,794	4,169	416	1,076	—	15,143	3,218	2,574	4,703	10,495	25,638

TABLE 68.—INCREASE and DECREASE of HORSES on the British Establishment in each year from 1861 to 1876.

Year.	Effectives on the 1st January in each year.	Increase.			Decrease.					Nett Increase.	Nett Decrease.	Effectives on the 31st December in each year.
		Recruited.	Other causes.	Total Increase.	Dead.	Cast and Sold.	Sold to Officers.	Other causes.	Total Decrease.			
1861	13,604	1,354	15	1,369	291	1,146	26	—	1,463	—	94	13,510
1862	13,510	1,684	739*	2,423	278	1,477	35	—	1,790	633	—	14,143
1863	14,143	1,377	—	1,377	361	1,536	33	76†	2,006	—	629	13,514
1864	13,514	1,495	93‡	1,588	228	1,674	30	—	1,932	—	344	13,170
1865	13,170	1,336	—	1,336	252	1,503	36	29	1,820	—	484	12,686
1866	12,686	1,373	—	1,373	236	1,298	25	17	1,576	—	203	12,483
1867	12,483	1,394	12	1,406	305	1,252	11	—	1,568	—	162	12,321
1868	12,321	1,558	1	1,559	238	1,049	16	—	1,303	256	—	12,577
1869	12,577	773	—	773	234	1,771	19	10	2,034	—	1,261	11,316
1870	11,316	3,407	32§	3,439	224	1,504	17	80‖	1,825	1,614	—	12,930
1871	12,930	2,976	42¶	3,018	364	979	39	—	1,382	1,636	—	14,566
1872	14,566	1,864	24	1,888	369	1,116	45	—	1,530	358	—	14,924
1873	14,924	1,301	13	1,314	301	1,027	24	—	1,352	—	38	14,886
1874	14,886	1,295	10	1,305	313	1,018	33	—	1,364	—	59	14,827
1875	14,827	1,549	12	1,561	295	1,081	45	—	1,421	140	—	14,967
1876	14,967	1,516	14	1,530	263	1,055	36	—	1,354	176	—	15,143

* Including 665 Royal Artillery horses received from the Canadian Government.
† Including 40 to Commissariat Department, New Zealand.
‡ Including 42 in Canada and New Zealand.
§ Including 28 at the School of Gunnery taken on strength of Royal Artillery.
‖ Sold to Canadian Government.
¶ Including 15 officers' chargers and 15 transfers from the auxiliary transport at the Autumn Manœuvres.

TABLE 69.—AGES of the HORSES on the British and Indian Establishments on the 1st January in each year from 1873 to 1877.

Year.	British Establishment.						Indian Establishment.					
	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Not reported.	Total.	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Not reported.	Total.
1st January 1873	1,638	7,328	3,563	2,395	—	14,924	666	4,236	3,949	1,585	57	10,493
1st January 1874	1,831	7,308	3,518	2,229	—	14,886	507	4,190	4,367	1,536	13	10,613
1st January 1875	1,627	6,842	3,978	2,380	—	14,827	476	4,211	4,140	1,780	—	10,607
1st January 1876	1,880	5,195	5,378	2,493	21	14,967	266	4,026	4,258	2,140	—	10,690
1st January 1877	2,007	4,954	5,772	2,394	16	15,143	325	3,874	4,063	2,273	—	10,535

TABLE 70.—SIZES of the HORSES on the British and Indian Establishments on the 1st January in each year from 1873 to 1877.

Year.	British Establishment.						Indian Establishment.					
	14½ hands.	15 hands.	15½ hands.	16 hands.	Not reported.	Total.	14½ hands.	15 hands.	15½ hands.	16 hands.	Not reported.	Total.
1st January 1873	50	3,540	9,051	2,283	—	14,924	4,009	3,788	2,297	342	57	10,493
1st January 1874	73	3,702	9,138	1,973	—	14,886	3,868	4,094	2,267	371	13	10,613
1st January 1875	44	3,645	9,238	1,900	—	14,827	4,154	4,099	2,070	284	—	10,607
1st January 1876	26	2,854	9,869	2,197	21	14,967	3,896	4,191	2,342	261	—	10,690
1st January 1877	52	2,923	10,111	2,041	16	15,143	4,053	3,894	2,354	234	—	10,535

PART IX.—AUXILIARY AND RESERVE FORCES.

(From returns furnished by the Inspector-General of Auxiliary Forces.)

TABLE 71.—GENERAL ANNUAL RETURN of the Reserve and Auxiliary Forces for the year 1876, showing the different branches of the service.

Corps.	Date.	All Ranks.			
		Total Enrolled.	Establishment.	Wanting to complete.	Supernumerary.
Army Reserve { Class I.	1st January 1877	6,062	*10,000	3,938	—
Army Reserve { Class II.	1st January 1877	23,714	*21,000	—	2,714
Militia	Date of Inspection	114,925	133,927	19,002	—
Yeomanry	Date of Inspection	12,093	15,067	2,974	—
Volunteers	1st November 1876	185,501	238,059	52,558	—
				78,472	2,714
	General Total	342,295	418,053	75,758	
Militia Reserve (included with Militia)	Date of Inspection	28,239	30,000	1,761	—

* Numbers voted in Army Estimates for 1876–7.

TABLE 72.—STATE of the ARMY RESERVE, showing the composition of the force, at the commencement of each quarter during 1876.

Date.		1st Class		2nd Class			TOTAL.	Detail of Class I.				
		Reserve of 1870.	Reserve of 1867.	Reserve of 1867.	Reserve of 1859.	Enrolled Pensioners.		Cavalry.	Artillery.	Engineers.	Infantry.	All Arms.
1st January 1876	Great Britain	5,417	38	624	1,710	14,282	22,071	187	202	15	5,051	5,455
	Ireland	574	22	82	156	5,143	5,977	5	5	—	586	596
	Total	5,991	60	706	1,866	19,425	28,048	192	207	15	5,637	6,051
		6,051										
1st April 1876	Great Britain	4,966	32	613	1,670	14,111	21,392	143	164	16	4,675	4,998
	Ireland	519	21	84	165	5,055	5,844	3	15	—	522	540
	Total	5,485	53	697	1,835	19,166	27,236	146	179	16	5,197	5,538
		5,538										
1st July 1876	Great Britain	5,254	27	596	1,662	15,630	23,169	162	167	11	4,941	5,281
	Ireland	563	20	82	161	5,409	6,235	4	18	1	560	583
	Total	5,817	47	678	1,823	21,039	29,404	166	185	12	5,501	5,864
		5,864										
1st October 1876	Great Britain	5,383	10	605	1,611	15,575	23,184	179	159	10	5,045	5,393
	Ireland	586	14	87	160	5,469	6,316	5	19	1	575	600
	Total	5,969	24	692	1,771	21,044	29,500	184	178	11	5,620	5,993
		5,993										

TABLE 73.—AGES of the MEN composing the Army Reserve on the 1st January 1877 and the number in each arm of the service.

—	Ages.					Arms of the service.				
	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	Cavalry.	Artillery.	Engineers.	Infantry.	Total.
CLASS I.										
Reserve of 1867	—	18	4	2	24	2	1	—	21	24
Reserve of 1870	2,949	1,515	1,437	137	6,038	185	159	11	5,683	6,038
	2,949	1,533	1,441	139	6,062	187	160	11	5,704	6,062
CLASS II.										
Reserve of 1867	2	15	192	478	687	59	73	7	548	687
Reserve of 1859	—	1	312	1,430	1,743	81	95	4	1,563	1,743
Enrolled Pensioners	48	406	2,417	18,413	21,284	830	3,093	147	17,214	21,284
	50	422	2,921	20,321	23,714	970	3,261	158	19,325	23,714
General Total	2,999	1,955	4,362	20,460	29,776	1,157	3,421	169	25,029	29,776

TABLE 74.—NUMBER OF MEN of the First Class Army Reserve who were absent from the quarterly payments during 1876, and the proportion to the number enrolled.

Quarter ending	Numbers Enrolled.					Numbers absent from quarterly payments.					Per-centage of absentees to numbers enrolled.
	Reserve of 1870.			Reserve of 1867.	Total.	Reserve of 1870.			Reserve of 1867.	Total.	
	Section A.	Section B.	Section C.			Section A.	Section B.	Section C.			
31st March 1876 -	1,821	—	3,664	53	5,538	80	—	246	2	328	5·9
30th June 1876 -	2,282	—	3,535	47	5,864	63	—	264	—	327	5·6
30th September 1876	2,380	95	3,494	24	5,993	60	—	269	—	329	5·5
31st December 1876	2,421	550	3,062	24	6,057	31	16	81	—	128	2·1

N.B.—Section A. consists of men who have been discharged from the army, section B. of those who have completed their period of short service with the colors, and section C. of those who have converted the unexpired portion of their Line service into service with the reserve under the 4th and 18th sections of the Army Enlistment Act of 1870.

TABLE 75.—GENERAL STATE of the MILITIA (including the Militia Reserve) at the date of the annual inspection of the several regiments in the year 1876.

—	By Ranks.							By Countries.				By Arms.			
	Officers.	Permanent Staff. Serjeants.	Permanent Staff. Drummers.	Serjeants.	Corporals.	Privates.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.	Artillery.	Infantry.	Rifles.	All arms.
Present at inspection -	2,985	3,274	1,203	2,244	4,325	86,580	100,611	65,920	10,567	24,124	100,611	11,785	70,331	18,495	100,611
Absent from inspection. With leave -	436	19	5	43	73	2,346	2,922	1,908	318	696	2,922	364	2,104	454	2,922
Absent from inspection. Without leave	24	3	1	14	59	11,291	11,392	7,915	1,111	2,366	11,392	1,383	8,238	1,771	11,392
Number enrolled - -	3,445	3,296	1,209	2,301	4,457	100,217	114,925	75,743	11,996	27,186	114,925	13,532	80,673	20,720	114,925
Establishment, - -	3,705	3,327	1,222	2,440	4,884	118,349	133,927	89,292	12,896	31,739	133,927	16,976	93,566	23,385	133,927
Wanting to complete -	260	31	13	139	427	18,132	19,002	13,549	900	4,553	19,002	3,444	12,893	2,665	19,002
Supernumerary - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 76.—EFFECTIVE STRENGTH of the Militia, in Rank and File, on the 1st of each month during 1876, and the average strength during the year.

Months.	Rank and File.			
	English regiments.	Scotch regiments.	Irish regiments.	Total.
1876.				
1st January	65,766	10,320	24,728	100,814
1st February	68,067	10,689	24,938	103,694
1st March	69,965	10,841	25,184	105,990
1st April	71,913	11,034	25,443	108,390
1st May	71,899	11,283	25,704	108,886
1st June	69,166	11,484	25,642	106,292
1st July	67,672	11,378	24,923	103,973
1st August	66,503	11,064	24,419	101,986
1st September	64,673	10,892	24,312	99,877
1st October	63,812	10,709	24,028	98,549
1st November	64,168	9,840	23,609	97,617
1st December	66,205	10,126	23,816	100,147
Total	809,809	129,660	296,746	1,236,215
Average during 1876	67,484	10,805	24,729	103,018

TABLE 77.—AGES of the Non-Commissioned Officers and Men serving in the Militia (including the Permanent Staff) on 1st January 1877.

	Ages.						
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.
Artillery	224	1,408	5,366	2,842	1,703	1,213	12,756
Infantry	1,173	14,300	30,969	15,816	8,318	5,649	76,225
Rifles	393	3,680	8,083	4,083	1,931	1,453	19,623
Total	1,790	19,388	44,418	22,741	11,952	8,315	108,604
English regiments	873	12,853	30,348	15,067	7,465	5,228	71,834
Scotch „	65	1,245	4,256	2,920	1,751	943	11,180
Irish „	852	5,290	9,814	4,754	2,736	2,144	25,590
Total	1,790	19,388	44,418	22,741	11,952	8,315	108,604
Militia Reserve (included above).	—	394	13,629	7,333	3,194	669	25,219

TABLE 78.—INCREASE and DECREASE of the MILITIA between the trainings in 1875 and 1876 (exclusive of the Permanent Staff).

	English regiments.	Scotch regiments.	Irish regiments.	Total.
Number enrolled at date of inspection in 1875 (exclusive of four Irish regiments not trained)	69,961	11,298	24,012	105,271
Increase. Recruits	21,746	3,369	6,222	31,337
Increase. Joined from Desertion	505	108	194	807
Increase. Other causes	573	69	128	770
Increase. Four regiments not trained in 1875	—	—	1,833	1,833
	22,824	3,546	8,377	34,747
Decrease. Dead	332	71	132	535
Decrease. Discharged	10,957	1,885	3,145	15,987
Decrease. Deserted	6,176	1,131	2,180	9,487
Decrease. Joined Regular Army	4,373	493	1,490	6,356
Decrease. Other causes	387	45	246	678
	22,225	3,625	7,193	33,043
Number enrolled at date of inspection in 1876	70,560	11,219	25,196	106,975

TABLE 79.—AGES of the RECRUITS who joined the Militia during the year 1876.

	Ages of Recruits joined.					
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	Over 30 years.	Total.
English regiments	858	10,189	12,229	3,121	801	27,198
Scotch „	99	1,210	1,771	620	292	3,992
Irish „	732	3,250	2,295	812	189	7,278
Total	1,689	14,649	16,295	4,553	1,282	38,468

TABLE 80.—EFFECTIVE STRENGTH of the MILITIA RESERVE at the date of the annual inspection of the several regiments for the year 1876.

	Number present at training of 1876.			Establishment.
	Enrolled during 1876.	Enrolled prior to 1876.	Total enrolled.	
English regiments - -	5,073	13,037	18,110	20,000
Scotch „ - -	890	2,402	3,292	2,500
Irish „ - -	1,506	5,331	6,837	7,500
Total -	7,469	20,770	28,239	30,000

N.B.—These numbers are also included in Table 75.

TABLE 81.—EFFECTIVE STRENGTH of the YEOMANRY CAVALRY at the date of the annual inspection of the several corps for the year 1876.

	By Ranks.				By Countries.			
	Officers.	Non-commissioned Officers.	Privates and Trumpeters.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.
Present at inspection -	676	1,503	7,682	9,861	9,024	837	—	9,861
Absent from inspection. With leave -	146	95	1,186	1,427	1,354	73	—	1,427
Absent from inspection. Without leave	11	37	757	805	703	102	—	805
Number enrolled - -	833	1,635	9,625	12,093	11,081	1,012	—	12,093
Establishment - -	803	1,753	12,511	15,067	13,795	1,272	—	15,067
Wanting to complete -	—	118	2,886	2,974	2,714	260	—	2,974
Supernumerary - -	30	—	—	—	—	—	—	—

TABLE 82.—STATE of the VOLUNTEER FORCE on the 1st November 1876, showing the numbers in each of the military districts.

District.	All Ranks.								
	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-efficients.	Total enrolled.	Who have obtained certificates of proficiency.			Present at annual inspection, including the Staff.
						Officers.	Serjeants.	Total.	
Northern -	80,584	910	62,419	3,231	65,650	1,511	3,606	5,117	54,494
Eastern - -	15,961	159	10,526	952	11,478	374	681	1,055	9,014
Western - -	27,854	715	20,788	1,374	22,162	522	1,205	1,727	17,848
Southern -	8,399	110	5,770	418	6,188	157	394	551	4,916
Chatham -	—	—	—	—	—	—	—	—	—
South-eastern -	9,024	260	5,893	528	6,421	177	443	620	5,290
Home - -	39,291	180	25,729	2,780	28,509	791	1,706	2,497	23,102
Woolwich -	1,880	50	1,378	92	1,465	40	97	137	1,247
Aldershot -	—	—	—	—	—	—	—	—	—
North Britain -	55,066	1,269	41,686	1,942	43,628	1,365	2,456	3,821	35,842
Jersey - -	—	—	—	—	—	—	—	—	—
Guernsey and Alderney -	—	—	—	—	—	—	—	—	—
Total -	238,059	3,653	174,184	11,317	185,501	4,937	10,588	15,525	151,753

TABLE 83.—STATE of the VOLUNTEER FORCE on the 1st November 1876, showing the different arms of the service.

Arms.	All Ranks.								
	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-efficients.	Total enrolled.	Who have obtained certificates of proficiency.			Present at annual inspection, including the Staff.
						Officers.	Serjeants.	Total.	
Light Horse -	720	9	444	106	550	22	21	43	470
Artillery -	42,459	890	32,554	2,237	34,791	865	2,119	2,984	27,908
Engineer -	8,932	140	6,863	571	7,434	136	396	532	6,093
Mounted Rifle-	240	—	106	73	179	8	10	18	105
Rifle - -	185,708	2,614	134,217	8,330	142,547	3,906	8,042	11,948	117,177
Total -	238,059	3,653	174,184	11,317	185,501	4,937	10,588	15,525	151,753

TABLE 84.—EFFECTIVE STRENGTH of the ARMY RESERVE on the 1st January in each year from 1861 to 1877.

Year.	1st Class.		2nd Class.			Total.
	Reserve of 1870.	Reserve of 1867.	Reserve of 1867 (*a.*)	Reserve of 1859 (*b.*)	Enrolled Pensioners (*c.*)	
1861	—	—	—	283	—	283
1862	—	—	—	572	—	572
1863	—	—	—	914	—	914
1864	—	—	—	1,370	—	1,370
1865	—	—	—	1,832	—	1,832
1866	—	—	—	2,596	—	2,596
1867	—	—	—	3,258	—	3,258
1868	—	—	—	3,858	—	3,858
1869	—	1,006	1,027	2,847	13,068	17,948
1870	—	1,939	1,151	2,734	14,643	20,467
1871	2,676	772	800	2,555	15,667	22,470
1872	6,659	363	720	2,325	19,183	29,250
1873	6,563	314	716	2,227	20,861	30,681
1874	7,376	243	667	2,112	20,648	31,046
1875	7,676	169	675	1,979	19,560	30,059
1876	5,991	60	706	1,866	19,425	28,048
1877	6,038	24	687	1,743	21,284	29,776

(*a.*) Enrolment suspended 23rd February 1869.

(*b.*) Enrolment suspended 18th August 1866.

(*c.*) Enrolled pensioners merged in the 2nd Class Army Reserve under the Army Reserve Regulations, dated 9th May 1868.

TABLE 85.—AGES of the Men belonging to the Army Reserve in 1873, 1875, 1876, and 1877.

Date.	1st Class.					2nd Class (including Enrolled Pensioners).					General Total.
	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	
30th November 1873 - - -	No returns compiled.				7,477	87	812	2,746	20,017	23,662	31,139
1st January 1875 - - -	No returns compiled.				7,845	100	672	2,786	18,656	22,214	30,059
1st January 1876 - - -	2,796	1,725	1,433	97	6,051	70	494	3,049	18,384	21,997	28,048
1st January 1877 - - -	2,949	1,533	1,441	139	6,062	50	422	2,921	20,321	23,714	29,776

TABLE 86.—AGES of the Men belonging to the Militia and the Militia Reserve in 1872, 1873, 1875, 1876, and 1877.

Date.	Militia.							Militia Reserve (included in foregoing numbers).						
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.
31st March 1872	1,310	17,975	48,041	22,054	10,152	4,914	104,446	53	3,022	14,529	6,292	2,005	443	26,344
30th Nov. 1873 -	1,258	14,993	46,402	22,104	11,044	5,286	101,087*	39	1,275	15,520	7,851	2,845	756	28,286
1st Jan. 1875 -	1,900	16,817	46,172	22,691	11,107	8,427	107,114†	—	783	14,076	8,031	3,439	884	27,213
1st Jan. 1876 -	1,769	17,235	46,255	21,705	11,272	8,099	106,335†	1	669	13,609	7,928	3,385	844	26,436
1st Jan. 1877 -	1,790	19,388	44,418	22,741	11,952	8,315	108,604†	—	394	13,629	7,333	3,194	669	25,219

* Exclusive of Permanent Staff.
† Including Permanent Staff.

TABLE 87.—EFFECTIVE STRENGTH of the MILITIA at the date of the inspection of the several corps in each year from 1861 to 1876.

Years.	By Ranks.							By Countries.				By Arms.			
	Officers.	Permanent Staff.		Serjeants.	Corporals.	Privates.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.	Artillery.	Infantry.	Rifles.	All Arms.
		Serjeants.	Drummers.												
1861	2,366			3,667		61,661	67,694	45,458	6,508	15,728	67,694				
1862	3,118			5,348		100,850	109,316	70,703	10,448	28,165	109,316				
1863	3,034			4,500		105,010	112,544	72,507	10,228	29,809	112,544				
1864	3,012			4,563		106,428	114,003	73,620	10,283	30,100	114,003				
1865	2,952			4,567		94,379	101,898	65,741	9,527	26,630	101,898	No returns compiled.			
1866	2,128			3,435		66,986	72,549	63,096	9,453		72,549				
1867	2,138			3,436		67,731	73,305	63,811	9,494		73,305				
1868	2,106	3,516	908	Included with Permnt. Staff.	2,757	70,781	80,068	69,896	10,172	Not trained.	80,068				
1869	2,128	3,538	909		2,814	75,830	85,219	74,485	10,734		85,219				
1870	2,097	2,530	882	950	2,773	74,429	83,661	72,956	10,705		83,661	9,389	62,439	11,833	83,661
1871	3,293	3,418	1,195	1,261	3,630	94,864	107,661	74,550	10,895	22,216	107,661	13,035	76,312	18,314	107,661
1872	3,371	3,412	1,195	1,250	3,567	103,285	116,080	79,026	11,936	25,118	116,080	13,638	83,176	19,266	116,080
1873	3,263	3,353	1,195	1,260	3,559	103,352	115,982	77,376	11,738	26,868	115,982	13,960	82,060	19,962	115,982
1874	3,298	3,413	1,195	2,030	4,218	98,525	112,679	73,723	11,982	26,974	112,679	13,878	78,977	19,824	112,679
1875	3,353	3,363	1,207	2,358	4,510	101,416	116,207	75,135	12,051	29,021	116,207	13,566	81,270	21,371	116,207
1876	3,445	3,296	1,209	2,301	4,457	100,217	114,925	75,743	11,996	27,186	114,925	13,532	80,673	20,720	114,925

TABLE 88.—EFFECTIVE STRENGTH of the YEOMANRY CAVALRY at the date of the annual inspection of the several corps in each year from 1870 to 1876.

Year.	By Ranks.				By Countries.			
	Officers.	Non-Commissioned Officers.	Privates and Trumpeters.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.
1870 - -	929	1,904	12,149	14,982	13,869	1,113	—	14,982
1871 - - -	836	1,552	11,419	13,807	13,097	710	—	13,807
1872 - -	838	1,615	10,662	13,115	12,436	679	—	13,115
1873 - - -	830	1,577	10,214	12,621	11,936	685	—	12,621
1874 -	843	1,674	10,298	12,815	12,149	666	—	12,815
1875 - - -	830	1,650	9,983	12,463	11,760	703	—	12,463
1876 - -	833	1,635	9,625	12,093	11,081	1,012	—	12,093

TABLE 89.—STATE of the VOLUNTEER FORCE in each year from 1863 to 1876.

ALL RANKS.											
Year.	Maximum Establishment.	Supernumeraries authorised.	Efficient.	Non-efficient.	Number enrolled.	Extra-efficient.	Officers and Serjeants who have obtained certificates of proficiency.	Present at inspection.	Per-centage of enrolled members who were		
									Efficient.	Extra-efficient.*	Present at inspection.
1863	226,156	—	113,511	49,424	162,935	47,871	—	—	69·6	34·9	—
1864	225,490	—	123,707	46,837	170,544	62,626	—	—	72·5	44·5	—
1865	226,661	—	133,848	44,636	178,484	65,980	—	—	75·0	45·0	—
1866	229,402	—	142,849	38,716	181,565	78,285	—	—	78·6	52·9	—
1867	235,812	—	155,216	32,648	187,864	90,588	—	—	82·6	59·4	—
1868	245,748	—	170,298	28,896	199,194	102,224	—	—	85·5	63·4	—
1869	244,931	—	168,477	26,810	195,287	105,560	—	—	86·3	66·9	—
1870	244,966	—	170,671	23,222	193,893	113,761	8,457	139,901	88·0	72·7	72·1
1871	246,232	—	172,619	19,989	192,608	117,721	10,642	138,334	89·6	75·6	71·8
1872	244,818	—	160,737	17,542	178,279	114,080	11,582	137,922	90·1	79·0	77·3
1873	240,067	—	153,216	18,721	171,937	—	12,911	135,115	89·1	—	78·6
1874	236,685	3,252	161,100	14,287	175,387	—	14,152	139,858	91·8	—	79·7
1875	238,261	3,333	168,709	12,371	181,080	—	14,869	145,753	93·1	—	80·5
1876	238,059	3,653	174,184	11,317	185,501	—	15,525	151,753	93·9	—	81·8

* This column does not apply to Artillery Volunteers.

Horse Guards, War Office,
31st December 1877.

C. H. ELLICE,
Adjutant General.

LONDON:
Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.

ROYAL WARRANT

FOR THE

APPOINTMENT, PROMOTION,

AND

RETIREMENT

OF

COMBATANT OFFICERS.

Dated the 13*th August* 1877.

Presented to both Houses of Parliament by Command of Her Majesty,
August 1877.

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
BY HARRISON AND SONS
Printers in Ordinary to Her Majesty.

1877.

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VICTORIA R.

WHEREAS We deem it expedient to consolidate and in certain respects to amend the provisions contained in Our Warrant of the 27th December 1870, and in all other subsequent Warrants now in force relating to the appointment, promotion, and retirement of the Combatant Officers of Our Army;

OUR WILL AND PLEASURE IS that, from the 1st October 1877, the undermentioned Warrants and Articles of Warrants be cancelled, namely:—

Articles 1 to 29, 31 to 33, 36 to 43, 50, 51, 57 to 60, 82 to 84, 110 (so far as it relates to Quarter-Masters and Riding-Masters), 112, 951 to 953, and 971 to 975, 980 to 984 of Our Warrant of the 27th December 1870;

Articles 7 to 18, 20 to 24, 26, 27, 29, and 30, of Our Warrant of the 30th October 1871;

Articles 3 and 10 of Our Warrant of the 28th December 1871;

Articles 1, 4, 11, 12 (in part), and 13, of Our Warrant of the 15th January 1872;

Articles 3 and 4 of Our Warrant of the 22nd March 1872;

Articles 2, 4 to 8, and 14, of Our Warrant of the 25th June 1872;

Articles 2 to 4 of Our Warrant for the Royal Artillery of the 5th July 1872;

Articles 1 to 3, and 6, of Our Warrant for the Royal Engineers of the 5th July 1872;

Articles 1 to 4 of Our Warrant of the 2nd December 1872:

Our Warrant of the 8th February 1873;

Articles 3 to 43 of Our Warrant of the 24th February 1873;

Our Warrant of the 1st August 1873;

Our Warrant of the 12th August 1873;

Articles 1 to 3, and 14 of Our Warrant of the 18th February 1874;

Our Warrant of the 17th March 1874;

Our Warrant of the 1st August 1874;

Our Warrant of the 5th December 1874;

Our Warrant of the 6th August 1875;

Our Warrant of the 13th December 1875, so far as it revises Article 112 of Our Warrant of the 27th December 1870;

Our Warrant of the 28th April 1876, so far as it revises Article 4 of Our Warrant of the 1st March 1873;

Our Warrant of the 17th June 1876;

Arts. 1, 2, and 4 of Our Warrant of the 30th October 1876;

Our Warrant of the 31st July 1877;

And that from the 1st October 1877 this Our Warrant shall be established and obeyed as the sole and standing authority on the matters herein treated of; and Our Principal Secretary of State, to whom we shall see fit to entrust the Seals of the War Department, shall be the sole Interpreter of this Our Warrant.

And whereas Our Royal Commissioners appointed by Us on the 7th November 1874 to enquire into the best means of making adequate provision for maintaining a reasonable rapidity of promotion throughout Our Army did, in their report to Us, dated the 5th August 1876, make the following statement:—

> "We do not intend to create any new vested rights: on "the contrary, we think it ought to be distinctly made known "to every Officer that any scale of pensions upon retirement "which may be adopted is not intended as a scale of fixed "sums, which an Officer has a legal or even a moral right to "claim or receive, but a scale of retirements purely optional "on the part of the Crown, and to be offered or not to individual "Officers according to the current exigencies of the service.
>
> "In other words, we wish it to be understood that in our "opinion no vested rights or moral claims, having the practical "force of vested rights, should be created in respect of pensions "or sums of money on retirement, inasmuch as their adjust- "ment in point of amount to the needs of the service is a matter "to be determined only by experience."

It is Our further Will and Pleasure that no Officer of Our Army shall be entitled to claim hereafter any promotion, pension, or other advantage conferred by any provision of Our present Warrant in the event of such provision being at any time added to, varied, or cancelled.

PROVIDED ALWAYS that, with the exceptions laid down in Art. 124, nothing contained in this Our Warrant shall be held to exclude any Officer who entered Our Service before the 1st October 1877 from any pecuniary advantage on retirement, of which he is already in enjoyment, or which would have been conferred upon him on retiring with the same rank and service under any of Our Warrants in force at that date.

IN THIS OUR WARRANT the following expressions shall be understood in the sense here stated :—

"Cavalry and Infantry" shall be held to include, unless the contrary be expressly stated, the regiments of Cavalry and Infantry of Our Household Brigade, Line, and Colonial Corps.

"Infantry of the Line" shall, unless the contrary be stated, be held to include regiments of Our Infantry of the Line and Colonial Corps.

"Civil Situation" shall be held to mean any civil employment of profit at home or abroad, in or under a Civil Department of the State, or under any Commissioners appointed under Our Royal Sign Manual or by Our Letters Patent.

"Mounted Officers" shall be held to mean such Captains of Our Foot Guards as shall be employed permanently on duties similar to those performed in a regiment of Infantry of the Line by the regimental Majors.

I.—APPOINTMENT, PROMOTION, AND RETIREMENT OF COMBATANT OFFICERS.

I.—First Appointments.
II.—Promotion.
III.—Seconded, Supernumerary, and Reserve Officers.
IV.—Exchanges.
V.—The Reckoning of Service.
VI.—Conditions of Retirement.
VII.—Honorary and Relative Rank.

I.—FIRST APPOINTMENTS.

A.—Second-Lieutenants.
B.—Lieutenants, Royal Artillery and Royal Engineers.
C.—Indian Staff Corps.
D.—Quarter-Masters and Riding-Masters.

A.—Second-Lieutenants.

Second Lieutenant

1. A commission as Second-Lieutenant in the Cavalry or Infantry of Our Army may be given:—

(*a.*) To a Cadet who having passed through a year's course of instruction at Our Royal Military College shall have passed thereat such a qualifying examination as shall be prescribed from time to time by Our Secretary of State.

(*b.*) To a Lieutenant of one of Our Regiments of Militia, or to a Lieutenant of Our Royal Malta Fencible Artillery, under such regulations as may be issued from time to time by Our Secretary of State. These Officers shall pass such an examination as may be fixed from time to time by Our Secretary of State before they receive a commission as Second-Lieutenant.

(*c.*) To a Non-commissioned Officer who is recommended for promotion by Our Commander-in-Chief, and who shall have passed such a professional examination as may be fixed from time to time by Our Commander-in-Chief with the approval of Our Secretary of State.

In the case of an appointment as Second-Lieutenant in Our Household Cavalry or Foot Guards, the Colonel of the Regiment shall nominate for Our approval a candidate qualified under this Article.

B.—Lieutenants, Royal Artillery and Royal Engineers.

Artillery and Engineers.

2. Commissions as Lieutenants in Our Royal Artillery (except in the Coast Brigade) or in Our Royal Engineers shall be given, on probation, exclusively to Cadets who shall have passed through the course of instruction prescribed for Our Royal Military Academy, and shall have there proved themselves qualified at a final examination.

Coast Brigade of Artillery.

3. A commission as Lieutenant in the Coast Brigade of Our Royal Artillery shall be given to such Non-commissioned Officer of Our Royal Artillery (whose age shall not, unless under special circumstances, exceed 40 years) as Our Commander-in-Chief, with the approval of Our Secretary of State, may recommend.

C.—Indian Staff Corps.

Indian Staff Corps.

4. Appointments shall be made to Our Indian Staff Corps, under such conditions and regulations as Our Secretary of State for India in Council may from time to time adopt, from Officers of Our Army who shall be under the rank of substantive Major, and who shall have served at least two years in Our Army. Such Officers shall at first be appointed on probation.

D.—Quarter-Masters and Riding-Masters.

Quarter-Master and Riding-Master.

5. A commission as Quarter-Master or Riding-Master shall be given to such Officer or Non-commissioned Officer (whose age shall not, unless under special circumstances, exceed 40 years) as Our Commander-in-Chief, with the approval of Our Secretary of State, may recommend.

II.—PROMOTION.

A.—Lieutenants.
B.—Captains.
C.—Majors.
D.—Lieutenant-Colonels.
E.—Colonels.
F.—Brigadier-Generals.
G.—General Officers.
H.—Field-Marshals.
I.—Colonels of Regiments and Colonels Commandant.
K.—General Regulations.

A.—Lieutenants.

Lieutenant, Cavalry and Infantry.

6. A Second-Lieutenant of Our Cavalry or Infantry may, on the occurrence of a vacancy, receive a commission as Lieutenant under such regulations as may be fixed from time to time by Our Commander-in-Chief with the approval of Our Secretary of State.

Promotion from Quarter-Master or Riding-Master.

7. A Quarter-Master or Riding-Master who may be recommended for promotion by Our Commander-in-Chief, and who shall have passed such a professional examination as may be fixed from time to time by Our Commander-in-Chief with the approval of Our Secretary of State, may be granted a commission as a Lieutenant in Our Cavalry or Infantry, provided he shall have served 12 months as Quarter-Master or Riding-Master.

Foot Guards.

8. A Regimental Lieutenant of Our Foot Guards, who entered Our Foot Guards before the 27th August 1871, shall have the substantive rank of Captain in addition to that of Lieutenant.

Qualification for Captain.

9. A Lieutenant shall be eligible for promotion to the rank of Captain after two years' service in Our Army, provided he shall have passed the professional examination prescribed by art. 60.

Removal, in case of failure to qualify for Captain.

10. A Lieutenant, who may have received his first commission on or after the 27th August 1871, shall be required to pass the professional examination for the rank of Captain within six years from the date of his first permanent commission, failing to do which he shall be removed from Our Service; unless, under special circumstances, it shall appear desirable to Our Secretary of State, on the recommendation of Our Commander-in-Chief, that the period should be extended.

B.—Captains.

Promotion to Captain.

11. A qualified Lieutenant shall be eligible for promotion to the rank of Captain—

(*a.*) Regimentally.

(*b.*) Upon half pay, upon the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State. Such promotions shall not exceed ten in any one year.

(*c.*) In Our Indian Staff Corps, under such regulations as shall be made from time to time by Our Secretary of State for India in Council.

Foot Guards.

12. A Regimental Captain of Our Foot Guards, who entered Our Foot Guards before the 27th August 1871, shall have the substantive rank of Lieutenant-Colonel in addition to that of Captain.

Disqualification for promotion.

13. A Captain of Our Cavalry or Infantry, other than a Captain who is a Mounted Officer in Our Foot Guards, if he attained that rank on or after the 1st November 1871, or a Captain of Our Royal Artillery or Royal Engineers who shall attain that rank on or after the 1st October 1877, shall not be eligible for promotion to a regimental Majority after the following periods of total service in all ranks, viz.:—

In the case of Our Cavalry and Infantry—

Until the 31st December 1878	23 years.
„ „ 1879	22 „
„ „ 1880	21 „
From and after 1st January 1881 ..	20 „

In the case of Our Royal Artillery and Royal Engineers—

Until the 31st December 1884..	23 years.
„ „ 1885.. ..	22 „
„ „ 1886.. ..	21 „
From and after 1st January 1887 ..	20 „

This Article shall not apply to any Officer subject to Indian Retiring Regulations.

14. A Captain of Our Household Cavalry or of Our Cavalry or Infantry of the Line, if he attained that rank before the 1st November 1871, shall not be eligible for promotion to a regimental majority after the following periods of total service in all ranks, viz.:— Disqualification for Major of Cavalry or Infantry (special).

Until the 31st December 1878 ..	..	28 years.
„ „ 1879 ..	..	27 „
„ „ 1880 ..	..	26 „
From and after the 1st January 1881 ..		25 „

This Article shall not apply to any Officer subject to Indian Retiring Regulations.

15. An Officer of Our Foot Guards, if he attained the rank of Captain and Lieutenant-Colonel before the 1st November 1871, shall not be qualified for promotion to the regimental rank of Major after the following periods of total service in all ranks, viz.:— Disqualification for regimental Major of Foot Guards.

Until the 31st December 1878 ..	..	33 years.
„ „ 1879 ..	..	32 „
„ „ 1880 ..	..	31 „
From and after 1st January 1881	..	30 „

16. A Captain of Our Cavalry or Infantry, who attained that rank before the 1st November 1871, may be promoted to the rank of Major without examination, if specially reported to Our Commander-in-Chief and approved by him as qualified for the rank of Major. Exemption from Examination.

17. A Captain may be promoted by brevet for distinguished service in the field without passing an examination; but he shall not be appointed to a regimental majority until he shall have passed the prescribed examination, unless he succeed to a vacancy while serving in the field, in which case the examination may be deferred until after such appointment; and the appointment shall only be provisional until such examination be passed. Examination deferred.

C.—Majors.

18. A qualified Captain shall be eligible for promotion to the rank of Major after six years' service in Our Army— Promotion to Major.

(*a.*) Regimentally.

(*b.*) Upon half pay, upon the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State. Such promotions shall not exceed two in any one year.

(*c.*) Upon half pay, after a total service of not less than 20 years, provided he attained the regimental rank of Captain in Our Cavalry or Infantry before the 1st November 1871, or if in Our Royal Artillery or Royal Engineers before the 1st October 1877.

(*d.*) By brevet, in succession to a Major promoted under art. 20 (*f*), if senior in the army rank of Captain and if on full pay or in any position in which his service is recognized as full-pay service.

(*e.*) By brevet, for distinguished service in the field.

(*f.*) By brevet, for distinguished service of an exceptional nature other than in the field.

(*g.*) In Our Indian Staff Corps under such regulations as shall be made from time to time by Our Secretary of State for India in Council.

Disqualification for promotion.

19. A Major of Our Cavalry or of Our Infantry of the Line promoted to that rank on or after the 1st November 1871, or a Major of Our Royal Artillery or Royal Engineers promoted to that rank on or after the 1st October 1877, who shall have had a total service of 27 years in all ranks, and who shall have held the substantive rank of Major for seven years, shall not be eligible, except as provided in art. 21, for promotion to the rank of Lieutenant-Colonel on the Full-pay List.

A Mounted Officer of Our Foot Guards appointed to that position on or after the 1st November 1871, who shall have had a total service of 27 years in all ranks, and who shall have held the position of Mounted Officer for 7 years, shall not be eligible for promotion to the regimental rank of Major in Our Foot Guards.

This Article shall not apply to any Officer subject to Indian Retiring Regulations.

D.—Lieutenant-Colonels.

Promotion to Lieut.-Colonel.

20. A qualified Major shall be eligible for promotion to the rank of Lieutenant-Colonel—

(*a.*) Regimentally, if holding the substantive rank of Major.

(*b.*) Upon half pay, upon the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State. No more than one such promotion shall be made in any one year.

(*c.*) Upon half-pay, on removal from a regiment under art. 129.

(*d.*) Upon half-pay on quitting a regiment of Infantry of the Line after a total service of 25 years in all ranks, provided he attained the regimental rank of Major before the 1st November 1871.

(*e.*) Upon half pay after five years' service in the Colonies as Deputy Adjutant- and Quarter-Master-General.

(*f.*) By brevet, if senior in the army rank of Major, in succession to a vacancy on the Establishment of General Officers, provided such vacancy occur before the 1st October 1880.

(*g.*) By brevet, for distinguished service in the field.

(*h.*) By brevet, for distinguished service of an exceptional nature other than in the field.

(*i.*) By brevet, on appointment to be Deputy Adjutant- and Quarter-Master-General abroad where there shall not be an Adjutant-General or Quarter-Master-General, provided he hold the substantive rank of Major.

(*k.*) By brevet, on removal from the appointment of Assistant Adjutant-General, Assistant Quarter-Master-General, Military Secretary, or Assistant Military Secretary, after 5 years' satisfactory service therein as a substantive Major, provided the Officer shall not have been retained on the establishment of a regiment or corps or as supernumerary thereto.

(*l.*) In Our Indian Staff Corps under such regulations as shall be made from time to time by Our Secretary of State for India in Council.

Household Cavalry.

21. An Officer shall be granted the substantive rank of Lieutenant-Colonel on appointment as Major in Our Life Guards or the brevet rank of Lieutenant-Colonel on appointment as Major in Our Royal Horse Guards; but if he shall have been so appointed on or after the 1st November 1871 he shall not be eligible for promotion to the rank of Lieutenant-Colonel on the Full-pay List if he shall have a total service of 27 years in all ranks, including 7 years as Substantive Major.

E.—Colonels.

Promotion to Colonel.

22. A Lieutenant-Colonel may attain the rank of Colonel—

(*a.*) By regimental succession in Our Royal Artillery or Royal Engineers, provided he shall have attained the regimental rank of Lieutenant-Colonel before the 1st October 1877.

(*b.*) By brevet, on appointment as Aide-de-Camp to the Sovereign.

(*c.*) By brevet, on appointment as regimental Lieutenant-Colonel of Our Foot Guards.

(*d.*) By brevet, as a reward for distinguished service in the field.

(*e.*) By brevet, for distinguished service of an exceptional nature, other than in the field.

(*f.*) By brevet, after five years' satisfactory service, with the rank, whether substantive or brevet, of Lieutenant-Colonel—

(1) In any military appointment, except as commanding a company or as Equerry or Extra Equerry.

(2) In any civil situation approved by Our Secretary of State upon the recommendation of Our Commander-in-Chief, provided it be of a nature to afford practical experience likely to be afterwards of advantage in military service.

(*g.*) By brevet, after eight years satisfactory service, under one or more of the following conditions:—

If a substantive Lieutenant-Colonel, or a substantive Major with the brevet rank of Lieutenant-Colonel—

as Equerry or Extra Equerry to the Sovereign or the Prince of Wales;

(*h.*) In Our Indian Staff Corps, under such regulations as shall be made from time to time by Our Secretary of State for India in Council.

Qualification for Major-General.

23. A Colonel shall be eligible for promotion to a vacancy on the Establishment of Major-Generals, provided he shall not have attained the age stated below:—

An Officer who shall have attained the rank of Colonel before the 1st October 1877, sixty-three years.

An Officer who shall have attained the regimental rank of Major in Our Foot Guards, or of Lieutenant-Colonel in any other arm of Our Service, before the 1st October 1877, sixty years.

An Officer who shall have attained the regimental rank of Major, or shall have become a Mounted Officer of Our Foot Guards, before the 1st October 1877, fifty-eight years.

An Officer who had not attained the regimental rank of Major, or who had not become a Mounted Officer in Our Foot Guards, before the 1st October 1877, fifty-five years.

This rule may be relaxed if in any special case it shall be represented to Us by Our Secretary of State, on the recommendation of Our Commander-in-Chief, that such relaxation would be for the good of Our Service; and, in all cases, a Colonel subject to Indian Retiring Regulations or a Colonel of Our Royal Marines shall, if otherwise qualified, be eligible for promotion to the rank of Major-General, notwithstanding that he shall have passed the age above prescribed.

F.—Brigadier-Generals.

Brigadier-General.

24. The rank of Brigadier-General shall be local or temporary only.

G.—General Officers.

a. The Separate Lists.
b. The Establishment.
c. Major-Generals.
d. Lieutenant-Generals.
e. Generals.

a. The Separate Lists.

Separate lists of General Officers

25. The names of General Officers shall be borne upon three separate lists. The first shall contain the names of those on the Establishment, and, in italics, the names of those who, having been promoted specially, are supernumerary to the Establishment. The second shall contain the names of General Officers retired under art. 137. The third shall contain the names of those who remain on the half pay of their last regimental Commission.

b. The Establishment.

Establishment.

26. The Establishment of Effective General Officers for the several branches of Our Service, other than Our Indian Military Forces, shall be as follows:—

Ranks.	Branches.							Total by Ranks.
	1	2	3	4	5	6	7	
	Cavalry and Infantry.	Artillery.	Late Indian Artillery.	Engineers.	Late Indian Engineers.	Indian Staff Corps.	Marines.	
Generals	40	6	5	3	3	14	3	72
Lieutenant-Generals	60	10	8	6	5	21	4	116
Major-Generals ...	100	16	13	9	8	35	6	187
Total by branches	200	32	26	18	16	70	13	375
		*		*				

* To be severally hereafter amalgamated under art. 28.

Branch promotion.

27. The several branches detailed in art. 26 shall be kept distinct for purposes of promotion, and, subject to the restrictions in arts. 29, 30, 31, 38, and 45, every vacancy on the Establishment of General Officers shall be filled by the transfer of a supernumerary General Officer of the same branch of the Service, or by the promotion of the senior qualified Colonel of such branch. A Colonel on unemployed Full Pay, or on Half-pay, shall, for purposes of promotion, be held to belong to that branch of the service in which he last served when on full pay. Until the separation of the Lists of General Officers provided for in art. 29, the Colonels of Our Cavalry and Infantry and of Our Indian Staff Corps shall constitute one branch for purposes of promotion to the rank of Major-General.

Amalgamated Lists for Artillery and Engineers.

28. When the last effective Officer of Our Royal (late Indian) Artillery and of Our Royal (late Indian) Engineers respectively, shall have been promoted to the rank of Major-General, the number of General Officers, as detailed in column 3 of art. 26, shall be amalgamated with those in column 2, and the number detailed in column 5 shall be amalgamated with those in column 4, and thenceforward promotion shall be to such amalgamated lists respectively.

Guards and Line and Indian Staff Corps.

29. The General Officers of Our Cavalry and Infantry and of Our Indian Staff Corps shall continue, for purposes of promotion, to form one branch of the establishment, until such time as the senior Colonel of Our Indian Staff Corps would have obtained his promotion to the rank of Major-General, if the vacancies to be absorbed under art. 31 had been filled in ordinary course. When that period shall have arrived, the establishments of General Officers for Our Cavalry and Infantry on the one hand and for Our Indian Staff Corps on the other hand shall be separated, and the General Officers who shall have been promoted from Our Cavalry and Infantry shall form part of the branch detailed in col. 1 of art. 26, and the General Officers who shall have been promoted from Our Indian Staff Corps shall form part of the branch detailed in col. 6 of that article. Thenceforth, on a vacancy occurring among the

General Officers of Our Cavalry and Infantry or of Our Indian Staff Corps, the senior qualified Colonel of the same branch shall be promoted to the rank of Major-General.

c. Major-Generals.

Filling up vacancies.

30. The vacancies created by the removal on the 1st of October 1877 to a Retired List under art. 137 of those General Officers who may then have attained the age of 70 years, shall be filled up by the promotion of the same number of the senior qualified Colonels of the respective branches.

Absorption: Guards and Line and Indian Staff Corps vacancies.

31. After the promotion of Effective General Officers provided for in art. 30, one vacancy in every three among General Officers of Our Cavalry and Infantry, which would give promotion to a Colonel of Our Cavalry or Infantry, and every vacancy among the General Officers of Our Indian Staff Corps or of Our Indian Military Forces which would, under any of Our Warrants now in force, give promotion to a Colonel of Our Cavalry or Infantry, shall be absorbed until the total number of Effective General Officers of those branches shall have been reduced to 270 in all, if the separation referred to in art. 29 shall not have taken place, or to 200 for Our Cavalry and Infantry, and to 70 for Our Indian Staff Corps if such separation shall have taken place.

Completion of establishment.

32. If at the time the separation provided for in art. 29 takes place there be less than 200 General Officers of Our Cavalry and Infantry, or less than 70 of Our Indian Staff Corps, those numbers shall be at once made up by the absorption of supernumeraries, or by the promotion of the senior qualified Colonels of the same branch.

Temporary rank.

33. Temporary rank and command as Major-General may, for the convenience of Our Service, be conferred on a Colonel without regard to seniority; and if, in such temporary rank and command, he shall have conducted himself to Our satisfaction, the rank so held may, upon the special recommendation of Our Commander-in-Chief, be converted into permanent rank, after having been held for five years in time of peace, or for any shorter period in the field in time of war. A Colonel who shall vacate an appointment as temporary Major-General, and whose temporary rank shall not have been made permanent, may, upon the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State, be made an honorary Major-General, and shall retain that rank until he succeed to the establishment in virtue of his seniority on the list of Colonels.

Promotion for distinguished service in the field.

34. Promotion may be conferred upon a Colonel, without regard to seniority, for distinguished service in the field; and in such case the recommendation of Our Commander-in-Chief, detailing the services for which the Officer is promoted, shall be published in the General Orders of the Army and in the "London Gazette."

Seniority and Transfer to establishment.

35. A Colonel, promoted after temporary service in the rank of General Officer, or for distinguished service in the field, shall take his seniority for promotion or otherwise from the date of his

permanent rank as published in the "London Gazette." He shall be supernumerary to the Establishment of General Officers until the time when he would have attained the rank of Major-General by seniority, had he not been specially promoted from the rank of Colonel.

d. Lieutenant-Generals.

Promotion to Lieutenant-General.

36. A vacancy in the Establishment of Lieutenant-Generals shall be filled by the promotion of the senior effective Major-General of the same branch on the Establishment, and any supernumerary Major-General of the same branch senior to such Officer shall at the same time be promoted.

Filling up vacancies.

37. The vacancies in the rank of Lieutenant-General caused by the removal, on the 1st October 1877, to a Retired List under art. 137 of Lieutenant-Generals or Generals who may then have attained the age of 70 years shall be filled up by the promotion of as many qualified Major-Generals of the same branch.

Absorption: Guards and Line

38. For every three vacancies in the rank of Major-General of Our Cavalry and Infantry and Indian Staff Corps, absorbed under art. 31, one vacancy in the rank of Lieutenant-General shall be absorbed in the same branch until the total number of effective Lieutenant-Generals of Our Cavalry and Infantry shall be reduced to 60, and those of the Indian Staff Corps to 21.

Promotion on half-pay list or Retired List.

39. A Major-General retired under art. 137, or a Major-General on the half-pay of his last regimental Commission, shall be promoted to the rank of Lieutenant-General when the Officer on the Establishment of the same branch who was next junior to him on the list of Colonels shall obtain such promotion.

Temporary rank

40. Temporary rank and command, as Lieutenant-General, may, for the convenience of Our Service, be conferred, without regard to seniority, on a Major-General, or on a Colonel who has been employed in the temporary rank of Major-General. If in such temporary rank and command he shall have conducted himself to Our satisfaction for five years in time of peace, or for any shorter period in the field in time of war, he may, upon the special recommendation of Our Commander-in-Chief, be granted a step of permanent rank.

Promotion for distinguished service in the field.

41. Promotion may be conferred upon a Major-General, without regard to seniority, for distinguished service in the field; and in such case the recommendation of Our Commander-in-Chief, detailing the services for which the Officer is promoted, shall be published in the General Orders of the Army and in the "London Gazette."

Seniority and transfer to establishment

42. An Officer promoted to the permanent rank of Lieutenant-General after temporary service in that rank, or for distinguished service in the field, shall take his seniority for promotion, or otherwise, from the date of promotion to permanent rank as published in the "London Gazette." He shall be supernumerary to the Establishment of Lieutenant-Generals or (if again promoted) of Generals until the time when he would have attained the rank of Lieutenant-General by seniority, had he not been specially promoted from the rank of Major-General.

e. Generals.

Promotion to General.

43. A vacancy in the Establishment of Generals shall be filled by the promotion of the senior effective Lieutenant-General of the same branch on the Establishment, and any supernumerary Lieutenant-General of the same branch senior to such Officer shall at the same time be promoted.

Filling up vacancies.

44. The vacancies in the rank of General caused by the removal, on the 1st October 1877, to a Retired List of Generals who may then have attained the age of 70 years, shall be filled up by the promotion of as many qualified Lieutenant-Generals of the same branch.

Absorption: Guards and Line.

45. For every two vacancies in the rank of Lieutenant-General of Our Cavalry and Infantry and Our Indian Staff Corps, absorbed under art. 38, one vacancy in the rank of General shall be absorbed in the same branch, until the total number of effective Generals of Our Cavalry and Infantry shall be reduced to 40, and those of Our Indian Staff Corps to 14.

Promotion on half-pay list or Retired List.

46. A Lieutenant-General retired under art. 137, or a Lieutenant-General on the half pay of his last regimental Commission, shall be promoted to the rank of General when the Officer on the Establishment of the same branch who was next junior to him on the list of Colonels shall obtain such promotion.

Temporary rank.

47. Temporary rank and command as General may, for the convenience of Our Service, be conferred, without regard to seniority, on a Lieutenant-General, or on a Major-General or Colonel who has been employed in the temporary rank of Lieutenant-General. If, in such temporary rank and command, he shall have conducted himself to Our satisfaction, for five years in time of peace, or for any shorter period in the field in time of war, he may, upon the special recommendation of Our Commander-in-Chief, be granted a step of permanent rank.

Promotion for distinguished service in the field.

48. Promotion may be conferred upon a Lieutenant-General, without regard to seniority, for distinguished service in the field; and in such case the recommendation of Our Commander-in-Chief, detailing the services for which the Officer is promoted, shall be published in the General Orders of the Army and in the "London Gazette."

Seniority and transfer to establishment.

49. An Officer promoted to the permanent rank of General after temporary service in that rank, or for distinguished service in the field, shall take his seniority from the date of promotion to permanent rank as published in the "London Gazette." He shall be supernumerary to the Establishment of Generals until the time when he would have attained such rank by seniority, had he not been specially promoted from the rank of Lieutenant-General.

H.—Field-Marshals.

Promotion to Field-Marshal.

50. An Officer shall be promoted to the rank of Field-Marshal at the will of the Sovereign, and the rank shall be conferred without reference to seniority. A General Officer retired under

art. 137, shall remain eligible for promotion to the rank of Field-Marshal. The promotion of a General Officer on the Establishment to be a Field-Marshal shall create a vacancy in the Establishment of General Officers.

I.—Colonels of Regiments and Colonels Commandant.

Appointment.

51. The appointment of Colonel of a Regiment or of Colonel Commandant of the 60th Regiment, the Rifle Brigade, a Brigade of Royal Artillery, or a Battalion of Royal Engineers, shall be filled by selection from the Field-Marshals, from the Establishment of General Officers, or from the General Officers retired under art. 137, of the branch of the Service as detailed in art. 26 in which the vacancy occurs, such selection being made on the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State. The removal of a General Officer to the Retired List under art. 137 shall not disqualify him from continuing to hold such appointment.

K.—General Regulations.

General Rule.

52. Every promotion shall be made upon the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State.

Succession to a Retirement.

53. The selection of an Officer to succeed to any vacancy which may occur in Our Cavalry or Infantry caused by the retirement of an Officer shall not be made, until such retirement shall have been completed and shall have been published in the "London Gazette."

Absorption of Supernumeraries.

54. If a vacancy occur in the establishment of any rank in a regiment or corps in which there shall be a supernumerary Officer, under art. 68, such vacancy shall be filled by the absorption of the supernumerary Officer, except in cases of reduction of establishment, which shall be specially considered. When there shall have been more than one supernumerary Officer in a regiment or corps the case shall also be specially considered.

Succession to vacancies.

55. Succession to vacancies in the establishment of regiments of Cavalry or Infantry shall, subject to art. 54, be regulated as follows :—

Seniority.

(*a.*) If a vacancy be caused by the promotion, death, or seconding of an Officer below the rank of Lieutenant-Colonel, the promotion necessary to fill the vacancy shall (unless it be expedient that such vacancy be otherwise filled) be given to the senior qualified Officer of each lower rank in the regiment.

From half pay.

(*b.*) If a vacancy be caused by the retirement of an Officer upon temporary half pay, it shall, when practicable, be filled by the absorption or transfer of a supernumerary, or, should there be no such supernumerary, by the restoration to full pay of a duly qualified Officer from half pay. In the event of there being neither a supernumerary nor a half pay Officer available, the vacancy shall be filled by such qualified Officer as Our Commander-in-Chief may select with the approval of Our Secretary of State.

(*c.*) If a vacancy arise in the rank of Lieutenant-Colonel and there be on half pay a qualified Lieutenant-Colonel of the same arm of the Service who shall have been placed on half pay under art. 131 before completing 5 years' service as a substantive Lieutenant-Colonel, such Officer shall be brought back to fill the vacancy, and shall take seniority as if he had not been removed to half pay on appointment to the Staff; unless, upon the recommendation of Our Commander-in-Chief, Our Secretary of State shall think it desirable for the good of Our Service that the vacancy be otherwise filled.

Selection.

(*d.*) If a vacancy arise in the rank of Lieutenant-Colonel, or in any lower rank, from any other cause than those specified in this article under (*a*) and (*b*), it shall be filled by a qualified Officer of Our Army, who shall be selected by Our Commander-in-Chief, with the approval of Our Secretary of State.

Royal Artillery and Royal Engineers.

56. Succession to vacancies in the establishment of Our Royal Artillery and Our Royal Engineers shall, subject to art. 54 and to the limitation in art. 22 (*a*), be given to the senior qualified officer of each lower rank in the regiment or corps; unless, upon the recommendation of Our Commander-in-Chief, Our Secretary of State shall consider the circumstances of the case to be so exceptional as to justify a departure from this rule.

Restoration of unattached Officer to full pay.

57. An Officer promoted to half pay under article 11 (*b*), 18 (*b*), or 20 (*b*), shall be brought back to full pay, in the branch of the Service from which he shall have been promoted, within one year of such promotion. In the event of an Officer not being brought back to full pay within one year of his promotion, a special report shall be made to Our Secretary of State by Our Commander-in-Chief of the circumstances which may have rendered such an exception necessary.

Brevet promotion of Officers brought from half pay.

58. An Officer not below the regimental rank of Captain who shall be brought from half pay to full pay to serve, or who shall retire from half pay receiving the value of his Commission under the Regulation of the Forces Act, 1871, may be granted brevet promotion up to the rank of Lieutenant-Colonel inclusive, provided the Officer next junior in army rank on the Full Pay List shall have become entitled by seniority to brevet promotion in a corresponding rank.

Staff Officer of Pensioners.

59. A Staff Officer of Pensioners, after a satisfactory service of 14 years as such, or of seven years with brevet rank, shall, on vacating his appointment, be eligible for a step of substantive rank on half pay.

Examination for promotion.

60. An Officer below the rank of Major, except as specified in articles 16 and 17, shall not be recommended to Us for promotion unless he shall have previously passed such professional examination as may be fixed from time to time by Our Commander-in-Chief, with the approval of Our Secretary of State. An Officer serving with his regiment at a distant

foreign station may be provisionally promoted to a vacancy previously to passing his examination; but such promotion shall be cancelled, should he fail to pass such examination.

Prisoner of War.

61. The promotion of a Subaltern Officer, who may be taken a prisoner of war, may, on the recommendation of Our Commander-in-Chief, with the approval of Our Secretary of State, take place in the same manner as if he were effective with his regiment. In the case of a Captain, who, if he had not been made prisoner, would, by his regimental standing, have succeeded to the rank of Major, the loss of promotion, consequent on capture by the enemy may subsequently in like manner be made good to him after his exchange or release, so far as may be practicable, by his being advanced to the substantive rank which he would have attained had he not been taken prisoner, and by the antedating of his commission.

III.—SECONDED, SUPERNUMERARY, AND RESERVE OFFICERS.

A.—Seconded Officers.
B.—Supernumerary Officers.
C.—Reserve List of Royal Engineers.
D.—Privileges.

A.—Seconded Officers.

Seconding of Officer.

62. An Officer below the substantive rank of Lieutenant-Colonel appointed to the Staff, or to hold any appointment other than regimental approved by Our Secretary of State, or a Lieutenant-Colonel of Our Royal Artillery appointed to a civil situation, shall, on completing three months' service in such appointment, or in the case of an Aide-de-Camp one year's service as such, be seconded in his Regiment. This Article shall not apply in the case of an Officer of Our Royal Engineers lent for employment under a Civil Department, whose case is provided for in articles 69 to 76.

Officers in civil employ.

63. When an Officer, not of Our Royal Engineers, shall be provisionally appointed to a civil situation, he may be continued on the establishment of the regiment for six months; and if at the end of that period it shall be considered requisite to retain him in civil employment, he shall then be seconded. From that date the whole of his emoluments shall be derived from the Civil Department in which he may be employed.

Limit of seconded service.

64. After such Officer shall have been seconded for 10 years for the purpose of holding a civil situation, he shall, unless he retire from the Army, rejoin his regiment as a supernumerary.

Promotion of seconded Officer to field rank.

65. A seconded Officer shall on being promoted to a Lieutenant-Colonelcy or Majority in a Regiment or Corps, join the Regiment or Corps to which he may be promoted, unless the appointment for which he was seconded be again granted to him in the higher rank.

Return to regiment.

66. A seconded Officer who shall complete the term of service fixed for his appointment, or shall resign it on grounds satisfactory to Our Secretary of State, and whose service is not longer than the limit fixed for his rank by article 127 or 129, shall rejoin his Regiment as supernumerary in his rank, retaining his regimental position.

Exception.

67. A seconded Officer who shall resign his appointment on grounds not satisfactory to Our Secretary of State, shall be liable to be placed upon temporary half pay under the conditions of art. 159.

B.—Supernumerary Officers.

Retention as Supernumerary.

68. An Officer shall be retained as a supernumerary on the strength of his Regiment or Corps—

(*a.*) in case of a reduction in the establishment of the Regiment or Corps, when his retention is authorized by Our Secretary of State;

(*b.*) while awaiting a vacancy, after returning from the Seconded List under art. 64 or 66, or after the cessation of civil employment in the case of an Officer of Our Royal Engineers on the Temporary Reserve List.

C.—Reserve List of Royal Engineers.

Temporary civil employment.

69. An Officer of Our Royal Engineers, who may, with the approval of Our Secretary of State, be temporarily lent for employment in a civil situation shall be continued on the Establishment of his corps.

Temporary Reserve List.

70. An Officer lent for employment under art. 69, when in receipt of regimental pay, shall be liable to be recalled to military duty whenever required by Our Secretary of State. If, however, his recall from civil duties be certified to be attended with inconvenience to the Public Service, he shall, unless he be serving in India, be temporarily placed on a Reserve List; and his place in Our Corps of Royal Engineers shall, with the concurrence of the Lords Commissioners of Our Treasury, be filled up, if that course shall be recommended by Our Commander-in-Chief with the approval of Our Secretary of State.

Return from temporary Reserve List.

71. An Officer temporarily on the Reserve List relinquishing his civil employment on grounds satisfactory to Our Secretary of State, before completing 10 years of continuous civil employment, may return to his Corps at any time if his place therein shall not have been filled up, or, if it have been filled up, on the occurrence of a vacancy in his rank.

Permanent Reserve List.

72. An Officer who does not elect to return to the Establishment, shall, on completion of 10 years of continuous civil employment, be placed permanently on the Reserve List.

Permanent Reserve List.

73. An Officer lent for civil employment under art. 69, may at any time, at the request of the Head of the Department under which he is employed, and with the permission of Our Secretary of State, elect to continue permanently in that employment; in which case, unless he be serving in India, he shall be placed permanently on the Reserve List.

74. An Officer permanently on the Reserve List shall, unless recalled to military service, cease to have any claim to pay or emoluments from Army Funds. Pay of Officer on permanent Reserve List.

75. A vacancy caused in the corps by an Officer being placed permanently on the Reserve List shall be filled up, if that course be recommended by Our Commander-in-Chief, and approved by Our Secretary of State. Succession to Officer on Reserve List.

76. An Officer on the Reserve List shall, in case of emergency, be liable to be recalled to military service by Our Secretary of State. Recall to Military Service.

D.—Privileges.

77. An Officer supernumerary to the establishment of his Regiment or Corps, or on the Seconded List, or on the Reserve List of Our Royal Engineers (provided he continue in the civil service of the State and keep himself efficient for duty as a military Engineer), shall retain his military position, and be eligible for promotion precisely as if he had remained on the establishment of such Regiment or Corps. If the Officer be supernumerary he shall succeed in his turn to a vacancy in the next higher rank. If the Officer be on the Seconded List and hold rank not below that of Captain, he shall also succeed to such vacancy; but if his rank be below that of Captain, or if he be on the Reserve List of Our Royal Engineers, he shall be promoted when a vacancy shall occur for the Officer on the establishment next below him in seniority. Position and promotion.

78. The promotion to higher military rank of an Officer seconded for the purpose of holding a civil situation, or of an Officer on the Reserve List of Royal Engineers shall not give him any claim to augmentation of his Civil emoluments, nor to any Military pay or allowances, except when employed on Military Service. Promotion not to affect civil pay.

79. An Officer of Our Army employed in a civil situation shall not be entitled by virtue of his military rank to assume any military command, unless called out for military service by Our Secretary of State. He shall be liable, however, in any case of necessity, to serve on Courts-Martial, or to perform such temporary military duties as Our Secretary of State may direct. Military status of Officer in civil employment.

IV.—EXCHANGES.

80. An Officer of Our Regular Forces shall be permitted to exchange from one Regiment or Corps to another Regiment or Corps, under such conditions and regulations as have already been or may hereafter from time to time be approved by Us. Exchanges.

81. A Captain and Lieutenant-Colonel of Our Foot Guards, provided he be a Mounted Officer, may be permitted to exchange with a Regimental Lieutenant-Colonel of Our Infantry of the Line; and a Lieutenant and Captain of Our Foot Guards may be permitted to exchange with a Captain of Our Cavalry or Infantry of the Line. Foot Guards.

Position of exchanging officer.

82. An Officer exchanging into a Regiment of Our Cavalry or Infantry, shall, except as limited by art. 83, be placed for regimental seniority below all Officers holding the same regimental rank at the time of his exchange, except in the case of a Lieutenant whose commission bears date before the 28th October 1871, who will, on being brought into a Regiment from full or half pay, or by exchange with an Officer who was a Lieutenant prior to the 28th October 1871, be placed next above the senior Lieutenant of such Regiment who may not have completed three years' service.

Linked Battalions.

83. An Officer who obtained his first commission subsequently to the 8th April 1873, exchanging or being transferred from one to another battalion of a Sub-District Brigade shall, on exchanging or being transferred, take regimental seniority in the same manner as if transferred from one to another battalion of the same regiment.

V.—THE RECKONING OF SERVICE.

Definition.

84. Service shall be reckoned as full pay service or half pay service.

Full pay.

85. Full pay service shall include—

(*a.*) Service with a regiment.

(*b.*) Service while seconded.

(*c.*) Service while upon the Temporary Reserve List of Our Royal Engineers.

(*d.*) Half the Service in the ranks in case of an Officer promoted therefrom.

Promotion and voluntary retirement.

86. Full-pay service only shall reckon towards promotion and towards voluntary retirement, except in the cases of Officers promoted from the ranks provided for in articles 115, 119, 120 and 121.

Removal from a Regiment.

87. Half-pay service and leave of absence, with or without pay, shall reckon towards the period on completion of which an Officer shall be liable to removal from a Regiment or Corps.

Commencement.

88. The service of an Officer shall be reckoned from the date of his First Permanent Commission, except in the case of an Officer promoted from the ranks. Service rendered before the age of 20 shall not, however, reckon towards the period qualifying an Officer for retirement (other than on Retired Full Pay or Half Pay); towards the period after which an Officer shall be removed from his regiment; nor towards the period disqualifying an Officer for promotion.

Extra service for Lucknow.

89. The one year's service granted to the garrisons which defended Lucknow and the Alumbagh respectively, prior to the advance of any portion of the forces under the late Field-Marshal Lord Clyde, shall reckon as actual service towards retirement, but not towards the period on the completion of which an officer shall be liable to removal from his regiment, nor towards the period disqualifying an Officer for promotion.

Staff Service.

90. An Officer's Staff Service shall reckon towards qualification for promotion from the date of his Commission to the Staff. If not commissioned to the Staff, such service shall reckon from the date of assuming duty at home, or, in the case of a Staff appointment abroad, from the date of embarkation for the outward voyage until the date of disembarkation on returning home, if he shall return without delay. No period of Acting Staff service of less than six months' duration shall reckon, unless it be converted into actual Staff service by subsequent confirmation.

Special: Infantry Lieut.-Colonel.

91. A Lieutenant-Colonel of Our Infantry of the Line who attained the substantive rank of Major before the 1st November 1871, and who shall not have received on going to half pay the over-regulation value of his commission, may, on removal from his regiment under art. 130, count time thereafter on half pay towards the 30 years' full pay service required as a qualification for retirement on full pay under art. 115.

Unattached General Officer or Brevet-Colonel of Artillery or Engineers.

92. An Unattached General Officer or a Brevet-Colonel of Our Royal Artillery or Our Royal Engineers, who shall have been removed under art. 130 from the regiment or corps after five years' service as substantive Lieutenant-Colonel, may count time thereafter on half pay towards the 40 years' full-pay service required as a qualification for retirement under art. 174 (*g*).

VI.—CONDITIONS OF RETIREMENT.

A.—Voluntary Retirement.
B.—Removal from Regiments and Appointments.
C.—Retirement on account of age.

A.—Voluntary Retirement.

Retirement after 15 years.

93. An Officer on full pay, after not less than twelve years' service, may be permitted to retire from Our Army with a pension or gratuity, according to the scale laid down in art. 174, but he shall be liable to serve when called upon, in a case of national emergency, in Our Regular or Auxiliary Forces up to the age of 45, if he retire as a Lieutenant or Captain; up to the age of 55 if he retire as a Major, Lieutenant-Colonel, or Colonel; or up to the age of 70 if he retire as a General Officer. This article shall not apply to an Adjutant in Our Household Cavalry, an Officer in the Coast Brigade of Our Royal Artillery, a Quarter-Master, or a Riding-Master.

Transfer to Militia.

94. A Captain of Our Regular Forces shall be eligible to be transferred for service in the Militia of Our United Kingdom; and while so serving in the Militia shall, for a period not exceeding 10 years, be upon Half-Pay. During such period he may be permitted to retire from Our Army, receiving the value of any saleable commission he may have held on the 1st November 1871, less any sum he may have already received as over-regulation value on going to half pay.

Retired half pay with liability for service.

95. A Captain of Our Regular Forces, after 15 and not more than 20 years' service, may be permitted to retire on half pay; but he shall be liable until the age of 45 to serve whenever called upon, in Our Regular Forces or in Our Auxiliary Forces, and such Officer, should he neglect to serve when so called upon, shall, unless incapacitated by illness, proved to Our Secretary of State, be removed from Our Army. On attaining the age of 45, such Officer, if still on half pay, may be granted a step of honorary rank. A Captain of Infantry of the Line who attained that rank before the 1st November 1871, may, subject to the same conditions, be permitted to retire on half pay, with the gratuity provided under art. 175, after 12 and not more than 20 years' service.

Captain or Subaltern.

96. An Officer not above the rank of Captain retiring from Our Army after 20 years' service on the pension laid down in art. 174, may be granted a step of honorary rank.

Captain or Subaltern.

97. An Officer placed on half pay under art. 126 or 127 may at any time thereafter be permitted to retire from Our Army on the pension laid down in article 174, with a step of honorary rank, provided he have not received any sum as the over-regulation value of his commission on being placed on half pay. Such Officer shall be liable to be recalled to Our Service as stated in art. 93.

Purchase-Captains.

98. A Captain on full pay of Our Household Cavalry or of Our Cavalry or Infantry of the Line, who attained that rank before the 1st November 1871, and who under the Regulation of the Forces Act, 1871, would be entitled on retiring to half pay to any over-regulation money, may, after 20 years' service, be permitted to retire from Our Army with a step of honorary rank, on a special pension under art. 176, or to retire from his regiment as a Major on half pay. If a Cavalry Officer, he shall, on retiring from his regiment on half pay, receive a gratuity under art. 177. An Officer retiring from Our Army under this art. shall be liable to be recalled to Our Service as stated in art. 93.

Captains: Royal Artillery and Royal Engineers: Special.

99. A Captain of Our Royal Artillery or Royal Engineers, who attained that rank before the 1st October 1877, may after 20 years' service be permitted to retire from his regiment as a Major on half pay.

Captain and Lieutenant-Colonel, Foot Guards.

100. A Captain and Lieutenant-Colonel of Our Foot Guards, who was a Regimental Lieutenant in Our Foot Guards before the 1st November 1871, and who under the Regulation of the Forces Act, 1871, would be entitled on retiring to half pay to any over-regulation money, may, on completing a total service of 20 years, be permitted to retire from Our Army on the special pension laid down in art. 178, with a step of honorary rank. An Officer placed upon half pay under art. 128 may at any time be permitted to retire from Our Army under this article, provided he have not received any sum as the over-regulation value of his Commission on being placed on half pay. Such Officer shall be liable to be recalled to Our Service as stated in art. 93.

Purchase-Captain and Lieutenant-Colonel, Foot Guards.

101. A Captain and Lieutenant-Colonel of Our Foot Guards, who attained that rank before the 1st November 1871, shall be entitled, after 30 years' service, to retire from Our Army with a step of honorary rank on the terms laid down in art. 179. Such Officer shall be liable to be recalled to Our Service as stated in art. 93.

Majors.

102. A Major, other than of Our Foot Guards, or a Mounted Officer of Our Foot Guards, after completing seven years' service as substantive Major, or as Mounted Officer respectively, and not less than 27 years' total service, may be permitted to retire from Our Army with a step of honorary rank on the pension laid down in art. 174 (*d*). A Major other than of Our Foot Guards, or a Mounted Officer of Our Foot Guards, placed upon half pay as a Lieutenant-Colonel under art. 129 may be permitted to retire at any time from Our Army on the pension laid down for a Major in art. 174 (*d*), provided he have not received any sum as the over-regulation value of his Commission on being placed on half pay Such Officer shall be liable to be recalled to Our Service as stated in art. 93.

Purchase-Majors.

103. A Regimental Major of Our Cavalry or Infantry, who attained that substantive rank before the 1st November 1871, or a Mounted Officer of Our Foot Guards who was a Mounted Officer before the 1st November 1871, may be permitted to retire on half pay after five years' tenure of his present Commission as Major, or of his appointment as Mounted Officer, provided such retirement be recommended by Our Commander-in-Chief with the approval of Our Secretary of State.

Purchase-Majors. If Infantry.

104. A Regimental Major on full pay of Our Infantry of the Line who attained that substantive rank before the 1st November 1871, and who under the Regulation of the Forces Act, 1871, would be entitled on retiring to half pay to any over-regulation money, shall be entitled, after 25 years' service, to retire from Our Army on the terms laid down in art. 180, with a step of honorary rank; or to retire from his regiment on half pay with the substantive rank of Lieutenant-Colonel and the right to retire from Our Army at any time thereafter under art. 162. An Officer retiring from Our Army under this article shall be liable to be recalled to Our Service as stated in art. 93.

Purchase-Captain promoted to Major.

105. A Regimental Major on full pay of Our Household Cavalry or of Our Cavalry or Infantry of the Line, who was a Captain on full pay on the 31st October 1871 and attained the substantive rank of Major before, or within six months after, the 1st October 1877, and who under the Regulation of the Forces Act, 1871, would be entitled, on retiring to half pay to any over-regulation money, may, after 20 years' service, be permitted to retire from Our Army on a special pension, under art. 176, or to retire from his regiment upon half pay. If a Cavalry Officer, he shall, on retiring from his regiment on half pay, receive a gratuity under art. 177. An Officer retiring from Our Army under this article shall be liable to be recalled to Our Service as stated in art. 93.

the Service. This article shall not apply to any Officer whose first permanent Commission shall date after the 1st October 1877, nor to any Officer of the Coast Brigade of Our Royal Artillery, nor to any Officer subject to Indian Retiring Regulations.

Unattached General Officer, Colonel, or Brevet Colonel, Artillery or Engineers.

116. A Regimental Colonel of Our Royal Artillery or Royal Engineers may retire from Our Army after 40 years' service on the special pension laid down in art. 182. An Unattached General Officer of Our Royal Artillery or Our Royal Engineers, or a Brevet-Colonel of either Corps who shall have been promoted to the substantive rank of Lieutenant-Colonel after the 1st October 1877, and shall have served five years in that rank, may retire, after 40 years' service, under art. 174 (*g*).

Disqualification for Colonelcy.

117. An Officer retiring under article 114 or 116 shall be ineligible for the appointment of Colonel of a Regiment or Colonel Commandant.

Disqualification of Retired Officer.

118. Any Officer who shall retire from Our Army on any pension laid down in this Our Warrant shall be ineligible (except where otherwise provided in this Our Warrant) for further promotion or appointment in Our Army, unless recalled to Our Service under art. 93.

Half pay after 25 years' service

119. An Officer, whose first commission was obtained before the 1st October 1877, not being an Adjutant in Our Household Cavalry, a Quarter-Master, or a Riding-Master, shall have an unqualified right to be placed on half pay after a total service of 25 years, provided that in the case of an Officer promoted from the ranks he shall have served as a Commissioned Officer for 10 years. An Officer of Our West India Regiments, whose first Commission was obtained before the 1st October 1877, not being a Quarter-Master, shall also have an unqualified right so to retire after 21 years' service, including 12 in a West India Regiment, or after 16 years' continuous service in the West Indies or on the West Coast of Africa, including leave of absence, provided he shall be serving in a West India Regiment at the time of such retirement.

Adjutant of Household Cavalry, Quarter-Master, Riding-Master, Officers of Coast Brigade.

120. An Adjutant of Our Household Cavalry, an Officer of the Coast Brigade of Our Royal Artillery, a Quarter-Master, or a Riding-Master, after 30 years' total service, of which 10 years shall have been as Commissioned Officer, shall have an unqualified right to retire on the half pay laid down in art. 148.

Quarter-Master, West India Regiment.

121. A Quarter-Master of a West India Regiment shall have an unqualified right to retire, with the honorary rank of Captain, on the half pay laid down in art. 154, after 25 years' total service, of which 10 years shall have been as Quarter-Master, provided he have served 12 years in a West India regiment, or 16 years continuously in the West Indies or on the West Coast of Africa, including leave of absence.

Half pay when there is a supernumerary.

122. A regimental Officer, supernumerary in consequence of a reduction of establishment, may at any time, at his own request, be placed upon temporary half pay on the recommendation

of Our Commander-in-Chief, with the approval of Our Secretary of State. So long as such Officer shall remain supernumerary, any Officer of like rank in the regiment may in a similar manner be placed upon temporary half pay at his own request, and the supernumerary Officer shall then succeed to the vacancy thus created. In either case the Officer so placed upon half pay shall be liable to be brought back to full pay whenever his services may be required.

Limitation of right to voluntary retirement.

123. Except in the case of an officer retiring under art. 119, 120, or 121, and in the case of an officer passed over as being ineligible for promotion on account of length of service, whose right to retire shall be unquestionable, voluntary retirement with pension, half pay, or gratuity shall only be permitted when it shall be deemed expedient by Our Secretary of State. Before such voluntary retirement be permitted, it shall be specially recommended by Our Commander-in-Chief, and approved by Our Secretary of State.

Renunciation of Purchase rights.

124. An Officer retiring from a regiment or from Our Army under the provisions of any of the following articles 93, 95, 97, 98, 100 to 102, 104, 105, 108 to 112, 161, 162, and 174 to 181, shall be held by Us to have renounced all claims of which he may be possessed at the time of such retirement to payments from moneys now administered by the Commissioners appointed under the Regulation of the Forces Act, 1871.

Officer selling Commission.

125. An Officer applying for permission to sell his Commission shall, if serving with a Regiment, be required to produce a certificate from the Medical Officer doing duty with the Regiment, or if not so serving, from a military Medical Officer on full or half pay, not under the rank of Surgeon-Major, in which certificate such Medical Officer shall certify, in his own handwriting, that he has carefully examined the applicant and that he is in a good state of health. Should the Officer not be in good health, the examining Medical Officer shall substitute for this certificate a brief description of the disease or disability, adding his opinion as to whether it does or does not threaten early death. In this case a period of six weeks from the date of the application to sell must elapse before it can be taken into consideration.

B.—Removal from Regiments and Appointments.

Lieutenant or 2nd Lieutenant.

126. A Second Lieutenant or Lieutenant of Our Household Cavalry, or of Our Cavalry or Infantry of the Line, who shall have attained that rank subsequently to the 31st October 1871, or a Second Lieutenant or Lieutenant of Our Foot Guards, who shall have obtained his first Commission subsequently to that date, or a Lieutenant of Our Royal Artillery or Royal Engineers entering the service on or after the 1st October 1877, shall, unless he elect to retire from Our Army under art. 93, be placed on half pay on completing the following service in all ranks:—

Until the 31st December 1878	23 years.
„ „ 1879	22 „
„ „ 1880	21 „
From and after the 1st Jan. 1881 ..	20 „

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Captains.

127. A Captain of Our Household Cavalry, or of Our Cavalry or Infantry of the Line, who shall have attained that rank subsequently to the 31st October 1871, or a Captain of Our Foot Guards who shall have obtained his first commission subsequently to that date, and shall not have become a mounted Officer, or a Captain of Our Royal Artillery or Royal Engineers who shall attain that rank on or after the 1st October 1877, shall, unless he elect to retire from Our Army under art. 93, be placed on half pay on completing the following periods of total service, provided he shall then have served seven years as Captain, or so soon thereafter as he shall have completed seven years' service in that rank:—

In the case of Our Cavalry and Infantry—

Until the 31st December	1878	23 years.
„ „	1879	22 „
„ „	1880	21 „
From and after the 1st January	1881 ..	20 „

In the case of Our Royal Artillery and Royal Engineers—

Until the 31st December	1884	23 years.
„ „	1885	22 „
„ „	1886	21 „
From and after the 1st January	1887 ..	20 „

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Captain and Lieutenant-Colonel, Foot Guards.

128. A Captain and Lieutenant-Colonel of Our Foot Guards, not being a Mounted Officer, whose regimental rank in Our Foot Guards was not higher than Lieutenant on the 31st October 1871, shall, unless he elect to retire from Our Army under art. 100, be placed on half pay on completing the following periods of total service, provided he shall then have served seven years as Captain and Lieutenant-Colonel, or so soon thereafter as he shall have completed seven years' service as Captain and Lieutenant-Colonel:—

Until the 31st December	1878	23 years.
„ „	1879	22 „
„ „	1880	21 „
From and after the 1st January	1881 ..	20 „

Majors.

129. A substantive Major (not being a regimental Major of Our Foot Guards,) who shall have attained that substantive rank in Our Cavalry or Infantry subsequently to the 31st October 1871, or in Our Royal Artillery or Royal Engineers on or after the 1st October 1877, shall, unless he elect to retire from Our Army under art. 102, be placed on half pay as a Lieutenant-Colonel on completing 27 years' total service, provided he shall then have served seven years as a substantive Major, or so soon thereafter as he shall have completed seven years' service in that rank.

A Mounted Officer of Our Foot Guards who had not attained the regimental rank of Captain and Lieutenant-Colonel in Our Foot Guards on the 31st October 1871, shall, unless he elect

to retire from Our Army under art. 102, be placed on half pay as a Lieutenant-Colonel on completing 27 years' total service, provided he shall then have served seven years as a Mounted Officer, or so soon thereafter as he shall have completed seven years' service as Mounted Officer.

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Lieutenant Colonels.

130. A Lieutenant-Colonel of a Regiment of Our Cavalry or Battalion of Our Infantry or a regimental Major of Our Foot Guards, so appointed after the 31st October 1871, or a Lieutenant-Colonel of Our Royal Artillery or Royal Engineers appointed on or after the 1st October 1877, on completion of five years' service as substantive Lieutenant-Colonel with a Regiment or Corps, or as Regimental Major of Our Foot Guards, shall be placed on half pay, unless he elect to retire from Our Army under art. 111. A Lieutenant-Colonel brought back from half pay, under art. 55 (*c.*), shall again be placed on half pay, unless he elect to retire from Our Army under art. 111, on completing such further service as, with his previous Staff service as Lieutenant-Colonel, shall make up 5 years' total service in the substantive rank of Lieutenant-Colonel. Under special circumstances, however, Our Secretary of State may, on the recommendation of Our Commander-in-Chief, extend the term of service for any period not exceeding six months.

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Lieutenant-Colonel on appointment to Staff.

131. A Lieutenant-Colonel on appointment to the Staff shall be removed from his regiment or corps; and on the termination of his Staff appointment he shall be placed on half pay, unless he elect to retire from Our Army under art. 111.

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Colonel of Artillery or Engineers.

132. A Regimental Colonel of Our Royal Artillery or Royal Engineers, promoted to that rank on or after the 1st October 1877, shall, on completing five years' service in the rank, be placed on an unemployed Full-Pay List with the right of succession, subject to the limitation in art. 136, to the establishment of General Officers of his regiment or corps, unless he elect to retire from Our Army under art. 113.

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Seconded Officer for Civil Situation.

133. After 10 years shall have elapsed from the period of an Officer being seconded under art. 63, he shall, if he do not rejoin the Regiment permanently retire from Our Army.

Seconded Staff Officer.

134. In the event of an Officer seconded for the purpose of holding a Staff appointment completing the term of service after which he would, if serving with a regiment or corps, be placed upon half pay, he shall at such time be struck off the roll of his regiment or corps; but shall not thereby be disqualified from completing his term of Staff employment.

C.—Retirement on account of Age.

Lieutenant-Colonels at age of 60.

135. A Lieutenant-Colonel appointed as such before the 1st November 1871 shall, on attaining the age of 60 years, retire upon full pay from the command of a Regiment of Our Cavalry or Battalion of Our Infantry, or from Our Royal Artillery or Royal Engineers, unless it shall be reported to Our Commander-in-Chief by the General Officer inspecting the Regiment, Battalion, or Corps, that it would be for the good of Our Service that the said Officer should continue to serve and unless Our Secretary of State shall approve such continuance. If the Officer shall have attained the rank of Colonel, he shall retain his right to succeed in his turn (if qualified) to the establishment of General Officers.

This article shall not apply to any Officer subject to Indian Retiring Regulations.

Colonel.

136. A Colonel shall retire, on attaining the age stated below, on the pension laid down in art. 174 (*f*).

An Officer who shall have attained the rank of Colonel before the 1st October 1877—sixty-three years.

An Officer who shall have attained the regimental rank of Major in Our Foot Guards, or of Lieutenant-Colonel in any other Arm of Our Service, before the 1st October 1877—sixty years.

An Officer who shall have attained the regimental rank of Major, or shall have become a Mounted Officer in Our Foot Guards, before the 1st October 1877—fifty-eight years.

An Officer who had not attained the regimental rank of Major, or who had not become a Mounted Officer in Our Foot Guards, before the 1st October 1877—fifty-five years.

This article shall not apply to any Officer subject to Indian Retiring Regulations, nor to a Colonel of Our Royal Marines.

General Officers.

137. On or after the 1st October 1877, every General Officer who shall have attained or shall attain the age of 70 years shall be permanently removed from the establishment of effective General Officers to the Retired List, unless in any special case it shall be represented to Us by Our Secretary of State, on the recommendation of Our Commander-in-Chief, that a relaxation of this rule would be for the good of Our Service. In case such General Officer be holding a Staff appointment on the 1st October 1877, he may continue to hold it until the expiration of the term for which he was appointed, unless it appear to Our Secretary of State to be expedient that he should sooner be removed to the Retired List.

Staff Officer of Pensioners.

138. A Staff Officer of Pensioners shall retire from his appointment on attaining the age of 60 years, unless in any special case it would, in the opinion of Our Secretary of State, on the recommendation of Our Commander-in-Chief, be for the good of Our Service that the Officer continue in employment.

Coast Brigade of Artillery.

139. An Officer in the Coast Brigade of Our Royal Artillery shall retire on the full pay of his rank, with a step of honorary rank, on attaining the age of 55 years, or as soon thereafter as he shall complete 15 years' service as a Commissioned Officer and not less than 30 years' service in all ranks.

VII.—HONORARY AND RELATIVE RANK.

A.—Honorary Rank.
B.—Relative Rank.

A.—Honorary Rank.

Retired Full-Pay List.

140. Every Officer, with the exception of those referred to in articles 132 and 135, permitted to retire on the Retired Full-Pay List, shall be granted a step of honorary rank; but such Officer can have no further promotion unless he shall have retired before the 3rd November 1854 from Our Royal Artillery or Royal Engineers as a Regimental Field Officer on full pay, or in consequence of wounds or ill-health contracted in and by the service, in which case he shall succeed to the higher ranks with the Officer who stood next below him on the effective establishment at the time of his retirement.

Retired Officers from the Ranks.

141. Honorary rank as Captain shall be granted to an Adjutant of Our Household Cavalry, a Lieutenant of the Coast Brigade of Our Royal Artillery, a Quarter-Master, or a Riding-Master who shall retire after an aggregate service of 30 years, of which at least 10 shall have been as Adjutant of Our Household Cavalry, Lieutenant in Our Artillery, or Quarter-Master or 15 as Riding-Master, provided his duties shall have been performed to the satisfaction of Our Secretary of State.

B.—Relative Rank.

Precedence and advantages.

142. Relative rank shall carry all precedence and advantages (except as regards forage allowance and, in certain cases, choice of quarters) attaching to corresponding military rank; but shall not entitle the holder to military command of any kind, nor to the Presidency of Courts-Martial, Courts of Inquiry, Committees, or Boards of Survey.

Gradation.

143. The relative Army Rank of Officers of Our Staff and Departments shall be as follows:—

As Lieutenant-General.	Adjutant-General or Quarter-Master-General to the Forces. Military Secretary at Head-Quarters.
As Major-General.	Adjutant-General or Quarter-Master-General, elsewhere than at Head-Quarters. Deputy Adjutant-General or Deputy Quarter-Master-General to the Forces. Chaplain-General. Commissary-General, unless granted higher rank when serving with an Army in the field. Director-General of the Army Medical Department. Surgeon-General.
As Brigadier-General.	Deputy Adjutant-General in the Department of Our Commander-in-Chief. Deputy Adjutant-General or Deputy Quarter-Master-General, Dublin.

As Colonel ..	Deputy Adjutant- and Quarter-Master-General not in the Department of Our Commander-in-Chief, nor at Dublin.
	Assistant Adjutant-General or Assistant Quarter-Master-General in the Department of Our Commander-in-Chief.
	Military Secretary to a General Officer.
	Assistant Military Secretary in the Department of Our Commander-in-Chief.
	Chaplain, 1st Class.
	Deputy Commissary-General.
	Deputy Surgeon-General.
	Principal Veterinary Surgeon.
As Lieutenant-Colonel.	Assistant Adjutant- and Quarter-Master-General not in the Department of Our Commander-in-Chief.
	Assistant Military Secretary, if a substantive Field Officer, where there is no Military Secretary.
	Deputy Judge Advocate.
	Chaplain, 2nd Class.
	Assistant Commissary-General.
	Surgeon-Major, after 20 years' service, but junior of the rank.
	Principal Veterinary Surgeon in India.
As Major ..	Deputy-Assistant Adjutant-General or Deputy-Assistant Quarter-Master-General in the Department of Our Commander-in-Chief.
	Chaplain, 3rd Class.
	Acting Assistant Commissary-General.
	Commissary.
	Surgeon-Major, under 20 years' service.
	Governor of Military Prison, 1st Class.
	Paymaster, after 15 years' service as Commissioned Officer, with not less than 10 as Paymaster; junior of the rank, except for choice of quarters.
	Staff Veterinary Surgeon; junior of the rank, except for choice of quarters.
As Captain ..	Deputy-Assistant Adjutant- and Quarter-Master-General not in the Department of Our Commander-in-Chief.
	Brigade-Major.
	Aide-de-Camp.
	Town or Fort Major.
	Provost-Marshal, if commissioned as such.
	Chaplain, 4th Class.
	Deputy Commissary.
	Surgeon, after 6 years' service, according to date of completion of such service.
	Apothecary, after 15 years' service, according to date of completion of such service.
	Governor of Military Prison, 2nd and 3rd Class.
	Paymaster, under 15 years' service as a Commissioned Officer, and less than 10 as a Paymaster.

As Lieutenant	Town or Fort Adjutant. Garrison Quarter-Master. Deputy Provost-Marshal, if commissioned as such. Adjutant. Riding-Master. Quarter-Master. Assistant Commissary. Surgeon, under 6 years' service. Apothecary, under 15 years' service. Clerk of Works, 2nd Class. Clerk, Royal Engineer Department, 1st and 2nd Class. Veterinary Surgeon. Sub-Inspector of Army Schools.
As Second Lieutenant.	Sub-Assistant Commissary. Clerk of Works, 3rd Class. Clerk, Royal Engineer Department, 3rd Class.

II.—UNATTACHED AND HALF PAY, PENSIONS, AND GRATUITIES OF COMBATANT OFFICERS.

I.—Unattached Pay.
II.—Half Pay.
III.—The Retired Full Pay List.
IV.—Pensions and Gratuities.

I.—UNATTACHED PAY.

Rates.

144. A General Officer on the Establishment under art. 26, or on the Retired List under art. 137, shall receive unattached pay according to the following scale:—

If of Our Guards or Line, except as stated below ..	1*l.* 5*s.* a-day.
If of Our Royal Artillery or Royal Engineers, except as stated below	1*l.* 6*s.* a-day.
If promoted from Regimental Lieutenant-Colonel of Our Foot Guards	600*l.* a-year.
If promoted from Regimental Major of Our Foot Guards	550*l.* a-year.
If promoted from Regimental Colonel of Our Royal Horse Artillery or from Regimental Lieutenant-Colonel of Our Life Guards or Horse Guards	Net full pay of last regimental commission.

A General Officer supernumerary to the establishment shall receive unattached pay at the rate of 400*l.* a-year.

Limitation.

145. Unattached pay shall not be held by an Officer drawing the full pay of any regimental commission; nor, without the special sanction of the Lords Commissioners of Our Treasury, by an Officer holding a civil situation.

Suspension.

146. Under special circumstances to be determined by Our Secretary of State, the Unattached Pay of a General Officer, or any portion of it, may be suspended or withheld.

II.—HALF PAY.

A.—Rates and Conditions.
B.—Surrender.

A.—Rates and Conditions.

147. The following shall be the rates of half pay for Officers of Our Army:—

Rates.

Substantive Rank, &c., when placed on Half Pay.	Cavalry.	Infantry.	Royal Artillery or Royal Engineers.
	Daily.	Daily.	Daily.
	s. *d.*	*s.* *d.*	*s.* *d.*
Colonel	—	—	16 9
Lieutenant-Colonel	12 6	11 0	11 8
Major	10 0	9 6	10 0
Captain	7 6	7 0	7 4
Having superior Brevet Rank, provided he have served as Captain on full pay for at least two years immediately before retirement to half pay	7 6	8 0	8 4
Lieutenant	3 6	3 0	3 2
„ (after 3 years' service in that rank)	4 8	4 0	4 2
„ (after 7 years' service in that rank, if he held that rank on the 31st October 1871)	4 8	4 6	4 2
„ (after 10 years' service in that rank)	4 8	4 6	4 8
Second Lieutenant	3 0	3 0	—

Appointed from Ranks.

148. The daily rate of half pay of an Adjutant of Our Household Cavalry, an Officer of the Coast Brigade of Our Royal Artillery, a Quarter-Master, or a Riding-Master, who shall have previously served at least five years as a Non-commissioned Officer, shall be as follows:—

	Cavalry or Infantry.	Royal Artillery or Royal Engineers.
	s. *d.*	*s.* *d.*
Under 4 years' commissioned service	3 0	4 0
„ 5 „ „	3 0	5 0
„ 6 „ „	4 0	5 6
„ 7 „ „	4 0	6 0
„ 8 „ „	4 0	6 6
„ 9 „ „	4 0	7 0
„ 10 „ „	4 0	7 6
„ 15 „ „	5 0	7 6
Above 15 years' total service, including 10 as commissioned officer	5 6	7 6
„ 20 „ „ „	6 0	7 6
„ 25 „ „ „	7 0	7 6
„ 30 years' total service, including 10 as Riding-Master	8 0	8 0
„ 30 years' total service, including 10 as Adjutant or Quarter-Master or as an Officer in the Coast Brigade of Artillery, or 15 as Riding-Master	10 0	10 0

149. The number of Officers granted promotion on half pay under arts. 11 (*b*), 18 (*b*), and 20 (*b*) who may be on half pay at any one time, shall not exceed 1 Lieutenant-Colonel, 2 Majors, and 10 Captains. Limit of special half pay.

150. On reduction from full pay after actual service for three years as a Commissioned Officer in Our Army, or in the case of an Officer promoted from the ranks after service on full pay as Commissioned Officer for one year and as non-commissioned Officer for five years, an Officer may be granted temporary half pay until an opportunity shall occur for his re-employment. In such case, after two years' commissioned service, half pay may be granted for three years, and after one year's commissioned service half pay may be granted for two years. Reduction from full pay.

151. An Officer who may become unfit for service in consequence of wounds received in action, or of ill-health contracted in and by the performance of military duty, as certified by a Medical Board, may be granted temporary half pay until he shall recover, and until an opportunity shall occur for his re-employment. Except in the case of wounds received in action, the Officer must, however, have served with a commission in Our Regular Army for three years, unless he shall have been promoted from the ranks, when one year's service only as a Commissioned Officer shall be required. In special cases in which the circumstances may appear to Our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the service. Wounds or ill-health.

152. In the case of an Officer placed upon temporary half pay in consequence of injuries caused in and by the service, Our Secretary of State may, provided a Military Medical Board report that the Officer is unfit for further service, place such Officer upon permanent half pay, after not less than one year upon temporary half pay. In special cases in which the circumstances may appear to Our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the service. Injuries in and by the service.

153. A Quarter-Master or Riding-Master appointed from another Commission in Our Army shall, in case of reduction or retirement to half pay before completing 10 years' service as Quarter-Master or Riding-Master, receive the half pay of his former Commission. After 10 years' service he may be granted the rates laid down in art. 148. Appointed from another Commission.

154. An Adjutant of Our Household Cavalry retiring under art. 120, or a Quarter-Master of one of Our West India Regiments retiring under art. 121, shall be granted half pay at the rate of 10*s.* a-day. Adjutant of Household Cavalry; Quarter-Master, West India Regiment.

155. An Officer transferred from Our Indian Military Forces, who may have entered one of the 12 Line regiments originally forming part of the Forces of the East India Company, may be placed upon temporary half pay in any case arising out of ill- Officers from Indian Army.

health, certified by a Medical Board in the usual manner. An Officer who may be thus placed on half pay, or who may have exchanged to the Half-Pay List, shall, if duly qualified, rise to the rank of General Officer, and shall be eligible to succeed to a regiment with Colonel's emoluments. Should an Officer thus placed on half pay desire at any subsequent period to take the Indian pension, he shall be permitted to do so, but shall in that case be allowed only the rate to which he had acquired a claim up to the date of being placed on half pay.

Retention with other pay.

156. Half pay may be held concurrently with Staff pay, when such Staff pay shall not be a consolidated rate of pay, or in the case of Officers retiring under art. 94 or 95, with pay in Our Auxiliary Forces during training. It shall not be held by an Officer drawing the full pay of a regimental commission in Our Regular Forces or in Our Auxiliary Forces when embodied.

Civil situation.

157. Half pay shall not, without the special sanction of the Lords Commissioners of Our Treasury, be issued to any Officer holding a Civil situation.

Suspension.

158. Under special circumstances, to be determined by Our Secretary of State, the Half Pay of an Officer, or any portion of it, may be suspended or withheld.

Reduced rate.

159. An Officer of Our Army removed from full pay, for misconduct or incapacity, or a seconded Officer resigning his appointment on unsatisfactory grounds, may, on the recommendation of Our Commander-in-Chief, receive a reduced rate of temporary half pay, of such amount and for such period as Our Secretary of State may decide, taking into consideration the length and character of the services rendered by the Officer.

Forfeiture.

160. An Officer on temporary half pay shall be liable to be called back to military duty; and should he neglect to serve when called upon, if not incapacitated by illness contracted in and by the service, as certified by a Military Medical Board, he shall be removed from Our Army. In special cases in which the circumstances may appear to Our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the service.

B.—Surrender.

Half pay Majors.

161. A Captain of Our Household Cavalry or of Our Cavalry or Infantry of the Line who shall have retired from his regiment on half pay with the substantive rank of Major under art. 98, or a Major who shall have retired on half pay under art. 105, may, within six months thereafter, retire from Our Army by the surrender of his half pay for a sum of 3,200*l.*, or at any time thereafter by the surrender of his half pay for such a reduced sum as shall be fixed by Our Secretary of State in proportion to the Officer's increased age.

Half pay Lieut.-Colonels—Infantry.

162. A Major of Our Infantry of the Line who shall have retired from his regiment on half pay with the substantive rank of Lieutenant-Colonel under art. 104, or a Lieutenant-Colonel who shall have retired on half pay under art. 108, may within six months thereafter retire from Our Army by the surrender of his half pay for a sum of 4,500*l.*, or at any time thereafter by the surrender of his half pay for such a reduced sum as shall be fixed by Our Secretary of State in proportion to the Officer's increased age.

III.—THE RETIRED FULL-PAY LIST.

Officers eligible.

163. The Retired Full-Pay List shall be limited to Officers (not subject to Indian retiring regulations) whose first commissions shall have been obtained before the 1st October 1877; and may consist of Unattached General Officers of Our Royal Artillery and Royal Engineers, and of Field Officers and Captains of all arms.

Rates.

164. The retired full pay of a substantive Lieutenant-Colonel shall be 20*s.* a-day; and that of an Officer below that substantive rank shall be the full pay to which he shall be entitled.

Limits.

165. The annual amount expended on the Retired Full-Pay List under art. 163 shall not, except as shown in art. 166, exceed, for Our Cavalry and Infantry, 72,750*l.*, to which sum the amount of 62,000*l.*, fixed as the limit by Our Warrant of the 18th February 1874, shall be gradually raised by such additions as Our Secretary of State shall from time to time determine. The annual amount expended for Our Royal Artillery shall not exceed 42,400*l.*; and for Our Royal Engineers 21,500*l.*

Sums allowed in excess.

166. The following sums shall not be charged against the total amounts fixed by art. 165:—

(*a.*) Any pension granted under art. 116 or 135.

(*b.*) Any pensions of Staff Officers of Pensioners who may retire in excess of two in any year.

(*c.*) Any sum in excess of 13*s.* 7*d.* a-day granted to a Staff Officer of Pensioners retiring on full pay after receiving unattached promotion under art. 59.

(*d.*) Any sum in excess of 1*l.* 6*s.* a-day granted to an Officer of Our Royal Artillery or Royal Engineers under art 172.

(*e.*) Any pension granted under art. 139 to an Officer in the Coast Brigade of Our Royal Artillery.

Reduction of excess.

167. The pensions of Staff Officers of Pensioners made supernumerary under 166 (*b*) shall be absorbed at the rate of two in each year.

Suspension.

168. Under special circumstances to be determined by Our Secretary of State the Retired Full Pay of an Officer, or any portion of it, may be suspended or withheld.

Civil Situation.

169. Retired full pay shall not, without the special sanction of the Lords Commissioners of Our Treasury, be issued to any Officer appointed to a civil situation after his retirement upon Full Pay.

Civil situation.

170. An Officer who may retire upon Full Pay while holding a civil situation shall not be qualified to receive his Retired Full Pay so long as he shall hold such civil situation.

Field Officers—Artillery and Engineers.

171. Of the Regimental Field Officers of Our Royal Artillery and Royal Engineers, who retired before the 3rd November 1854 and who have been or shall be promoted under art. 140 to the honorary rank of General Officer, a number not exceeding eight of Our Royal Artillery and four of Our Royal Engineers shall receive 400*l.* a year; and the two seniors of Our Royal Artillery and the senior of Our Royal Engineers shall receive 450*l.* a-year.

Officers retiring from civil employment.

172. An Officer serving in a civil situation, who shall have been placed on the Retired Full-Pay List, shall, on relinquishing his civil situation, have the first claim to unappropriated Retired Full Pay of his branch of the Service, up to the amount to which he is entitled.

Artillery and Engineers (special).

173. An Officer who was serving in Our Royal Artillery or Royal Engineers on the 5th July 1872, and who shall retire under art. 115 with the rank of General Officer or Regimental Colonel, shall be eligible to have his retired pay made up to a sum not exceeding 600*l.* a year, the difference between such sum and 600*l.* being the estimated equivalent for the pecuniary advantages which shall have been conferred upon him by Our Warrant of 5th July 1872, or by any subsequent revision of establishment or rates of pay. This equivalent shall be arrived at by an actuarial calculation in each case, and shall be approved by Our Secretary of State. This article shall not apply to any Officer subject to Indian Retiring Regulations.

IV.—PENSIONS AND GRATUITIES.

174. An officer, not of the Coast Brigade of Our Royal Artillery, permitted to retire from Our Army, shall receive upon retirement a gratuity or pension according to the following scale:—

Lieutenant, Captain, Major.

(*a.*) After 12 years' service, if a Lieutenant, Captain, or Major, a gratuity of £1,200
„ 15 „ „ „ 1,600
„ 18 „ „ „ 2,000

Lieutenant, Captain.

(*b.*) After 20 years' service, if not above the substantive rank of Captain, a pension of 200*l.* a year, with the addition of half his brevet pay if holding brevet rank for distinguished service in the field.

Major, Lieutenant-Colonel.

(*c.*) After 23 years' service, if a substantive Major, or a mounted Officer of the Foot Guards; or at any time after 12 years' service if a substantive Lieutenant-Colonel other than a Captain-and-Lieutenant-Colonel in Our Foot Guards, a pension of 250*l.* a-year.

(*d.*) After 27 years' service, if a Major other than of Our Foot Guards, of not less than 7 years' service in that substantive rank, or a mounted Officer of Our Foot Guards of not less than 7 years' service as a mounted Officer, or if a substantive Lieutenant-Colonel, a pension of 300*l.* a-year. Major, Lieutenant-Colonel.

(*e.*) After 30 years' service, if a substantive Lieutenant-Colonel, a pension of 365*l.* a-year. Lieutenant-Colonel.

(*f.*) If a Brevet-Colonel, Brevet-Colonel.

removed from a regiment, after 5 years' service as a substantive Lieutenant-Colonel, or as Regimental Major in Our Foot Guards,
or after completing 5 years' service as substantive Lieutenant-Colonel on the Staff,
or at the age of 55 if on the 1st October 1877 on half pay and qualified to succeed to the establishment of General Officers,
or, if retired under art. 136,

a pension of 420*l.* a-year in the case of an Officer of Our Cavalry or Infantry, or of 450*l.* a-year in the case of an Officer of Our Royal Artillery or Royal Engineers.

(*g.*) After 40 years' service, an Unattached General Officer, or a Brevet-Colonel of Our Royal Artillery or Royal Engineers, a pension of 600*l.* a year. Unattached General Officer, or Brevet-Colonel Royal Artillery or Royal Engineers.

175. A Captain of Our Infantry of the Line who attained that rank before the 1st November 1871, and who shall be permitted to retire on permanent half pay under art. 95, shall receive on such retirement a gratuity equal to the over-regulation value of the Commission he held on the 31st October 1871.

176. A Captain permitted to retire from Our Army under art. 98, or a Major permitted to retire from Our Army under art. 105, shall be granted: Major or Captain (special).

(*a.*) On retirement from Our Infantry of the Line, a pension not exceeding 259*l.* a-year, according to age, and, subject to that limit, equal in value to 3,200*l.* at the full Government commutation rate. In the case of an Officer whose service shall exceed 25 years on the 1st January next, the limit of 259*l.* a-year shall not be enforced.

(*b.*) On retirement from Our Household Cavalry or Our Cavalry of the Line, a pension of 180*l.* a-year, and a gratuity equal to the regulation and over-regulation value of the Commission he held on the 31st October 1871, less 1,600*l.*

177. A Captain of Our Household Cavalry or of Our Cavalry of the Line granted a Majority on half pay under art. 98, or a Major of Our Household Cavalry or Cavalry of the Line, permitted Major or Captain of Cavalry (special).

to retire from his regiment under art. 105, shall receive a gratuity equal to the regulation and over-regulation value of the Commission he held on the 31st October 1871, less 2,400*l.*

Captain and Lieutenant-Colonel, Foot Guards (special).

178. A Captain and Lieutenant-Colonel of Our Foot Guards permitted to retire from Our Army under art. 100 shall receive a special pension of 250*l.* a-year.

Captain and Lieutenant-Colonel, Foot Guards (special).

179. A Captain and Lieutenant-Colonel of Our Foot Guards permitted to retire from Our Army under art. 101, shall receive a pension of 450*l.* a-year, and a gratuity equal to the over-regulation money to which he would be entitled on retiring on half pay under the Regulation of the Forces Act, 1871.

Lieut.-Colonel or Major (special).

180. A Major of Our Infantry of the Line permitted to retire from Our Army under art. 104, or a Lieutenant-Colonel permitted to retire under art. 108, shall receive a pension of 292*l.* a-year, with a gratuity equal to the sum of money to which he would be entitled on retirement on full pay after 30 years' service under the Regulation of the Forces Act, 1871, as over-regulation money or bonus.

Lieutenant-Colonel (special).

181. A Regimental Lieutenant-Colonel permitted to retire from Our Army under art. 110 shall receive a pension of 600*l.* a-year.

Colonel, Royal Artillery and Royal Engineers.

182. A Regimental Colonel of Our Royal Artillery or Royal Engineers retiring after 40 years' service under art. 113 or 116, or a Regimental Colonel removed after serving five years in that rank, under art. 132, may retire on a special pension of 600*l.* a-year.

Increase of Pension for recall to Service.

183. If an Officer who shall have retired from Our Army be recalled to serve, under art. 93, with Our Regular or Auxiliary Forces, he shall be allowed to count such renewed service towards the period necessary to qualify him for a higher rate of pension than that on which he originally retired.

Colonel of Cavalry or Infantry (special).

184. An Officer of Our Cavalry or Infantry who attained the regimental rank of Major before the 1st November 1871, or who became a Mounted Officer of Our Foot Guards before that date, retiring as a Colonel under art. 136, shall have such an addition made to his pension fixed by article 174 (*f*) as Our Secretary of State shall consider a just equivalent for his net loss in being debarred, on account of age, from succeeding to the Establishment of General Officers. The principle on which such equivalent shall be calculated shall be determined with the concurrence of the Lords Commissioners of Our Treasury.

Artillery and Engineers (special).

185. An Officer who shall hold the rank of Major in Our Royal Artillery or Royal Engineers on the 1st October 1877, and who shall retire from Our Army after having been removed from the regimental position of Lieutenant-Colonel under art. 130, shall have such an addition made to his pension fixed by art. 174 as Our Secretary of State shall consider a just equivalent with reference to any net loss such Officer may have incurred by the operation

of any of Our Warrants of a later date than the 4th July 1872. The principle on which such equivalent shall be calculated shall be determined with the concurrence of the Lords Commissioners of Our Treasury. This article shall not apply to any Officer subject to Indian Retiring Regulations.

186. A pension granted to an Officer on retirement shall not, without the special sanction of the Lords Commissioners of Our Treasury, be issued to any Officer holding a civil situation. Civil Situation.

187. Under special circumstances, to be determined by Our Secretary of State, the pension granted to an Officer on retirement, or any portion of it, may be suspended or withheld. Suspension.

Given at Our Court at Osborne, this 13th day of August 1877, in the Forty-first Year of Our Reign.

By Her Majesty's Command,

GATHORNE HARDY.

[2000—8 | 77—375wo]

ABSTRACT

OF

ANNUAL RETURNS

OF

VOLUNTEER CORPS,

DATED

1st NOVEMBER, 1876;

IN

ALPHABETICAL ORDER OF COUNTIES.

WAR OFFICE, DECEMBER 1876.

Presented to both Houses of Parliament by Command of Her Majesty.
February 1877.

LONDON:
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BY HARRISON AND SONS,
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1877.

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ABSTRACT OF ANNUAL RETURNS,

DATED 1st NOVEMBER 1876.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Aberdeenshire	Artillery ..	..	1	80	..	61	3	64	3	5	59
			3	400	50	354	20	374	12	25	309
			5	80	..	80	..	80	3	5	78
				560	50	495	23	518	18	35	446
		1	Staff	12	..	3	..	3	..	..	3
	Total ..	..	..	572	50	498	23	521	18	35	449
	Rifle	..	1	1,100	..	798	3	801	26	43	663
			2	100	..	64	..	64	4	4	49
			3	100	..	60	..	60	2	..	41
			4	100	..	62	3	65	2	3	41
			5	100	..	58	3	61	4	4	54
			6	100	..	67	..	67	3	3	48
			7	100	..	100	..	100	3	5	80
			8	100	..	66	..	66	2	3	55
			9	200	..	154	..	154	7	12	128
			10	100	..	87	..	87	4	4	67
			11	100	..	69	5	74	2	1	52
			12	100	..	67	..	67	3	3	60
			13	100	30	120	..	120	4	4	72
			14	100	..	63	5	68	1	3	58
			15	100	..	50	10	60	3	2	45
			16	100	..	67	..	67	3	3	51
			17	200	..	123	..	123	6	10	115
			18	100	..	56	4	60	2	2	48
			19	100	..	72	2	74	3	4	61
			20	100	..	52	8	60	4	6	48
			21	200	..	159	5	164	3	10	117
			22	100	..	97	3	100	3	5	67
			23	100	..	100	..	100	2	3	62
			24	100	..	100	..	100	3	6	91
			25	100	..	84	1	85	2	5	63
			26	100	..	62	..	62	4	5	55
				3,900	30	2,857	52	2,909	105	153	2,291
		1	Staff	10	..	10	1	11	2	..	10
		2	„	7	..	10	..	10	1	..	10
		3	„	7	..	13	..	13	2	..	13
	Total ..	..	..	3,924	30	2,890	53	2,943	110	153	2,324

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Aberdeenshire —*cont.*	Artillery ..	..	..	560	50	495	23	518	18	35	446
	Rifle	..	..	3,900	30	2,857	52	2,909	105	153	2,291
				4,460	80	3,352	75	3,427	123	188	2,737
			Staff	36	..	36	1	37	5	..	36
	Total ..	..	..	4,496	80	3,388	76	3,464	128	188	2,773
Anglesey ..	Artillery ..	..	3	80	50	64	1	65	1	5	51
	Total ..	..	..	80	50	64	1	65	1	5	51
Argyllshire ..	Artillery ..	..	1	160	..	80	20	100	2	4	79
			3	80	..	62	8	70	3	4	60
			6	160	..	134	12	146	3	10	124
			7	80	..	58	2	60	3	4	46
			8	80	..	55	6	61	2	4	47
			9	49	..	21	11	32	1	3	24
			10	80	..	34	14	48	..	3	37
			11	80	..	38	13	51	3	4	36
			12	80	..	55	8	63	2	4	45
				849	..	537	94	631	19	40	498
		1	Staff	12	..	9	..	9	4	..	8
	Total ..	..	..	861	..	546	94	640	23	40	506
	Rifle	..	2	100	..	76	..	76	3	6	69
			3	200	30	201	..	201	5	11	185
			7	100	..	79	..	79	3	4	71
			8	100	..	71	4	75	2	3	56
			13	200	..	146	3	149	3	9	105
			14	100	..	51	10	61	3	4	50
				800	30	624	17	641	19	37	536
		1	Staff	10	..	13	..	13	5	..	11
	Total ..	..	..	810	30	637	17	654	24	37	547

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Argyllshire—*cont.*	Artillery ..	..	..	849	..	537	94	631	19	40	498
	Rifle	..	..	800	30	624	17	641	19	37	536
				1,649	30	1,161	111	1,272	38	77	1,034
			Staff	22	..	22	..	22	9	..	19
	Total ..	..	..	1,671	30	1,183	111	1,294	47	77	1,053
Ayrshire ..	Artillery ..	..	1	80	10	62	19	81	2	5	57
			2	160	..	138	5	143	4	10	126
			3	80	..	54	2	56	2	5	44
			4	129	..	108	..	108	2	6	87
			5	129	..	90	6	96	1	7	93
			..	578	10	452	32	484	11	33	407
		1	taff	10	..	4	..	4	..	..	4
	Total ..	..	..	588	10	456	32	488	11	33	411
	Rifle	..	1	100	..	91	..	91	3	6	78
			2	100	..	90	3	93	3	5	80
			3	100	..	63	8	71	2	5	54
			4	100	..	88	..	88	3	6	77
			5	100	..	76	..	76	3	4	72
			6	100	..	97	1	98	3	6	77
			7	100	..	69	..	69	1	5	48
			8	100	..	40	13	53	2	3	38
			10	100	..	76	4	80	3	5	68
			11	100	..	93	..	93	4	6	67
			12	100	..	66	..	66	3	5	45
			13	100	..	76	..	76	3	5	65
			14	100	..	64	5	69	2	4	53
			15	100	..	75	2	77	3	5	75
			16	100	..	82	1	83	1	5	68
			17	100	..	74	..	74	2	5	69
				1,600	..	1,220	37	1,257	41	80	1,034
		1	Staff	10	..	9	..	9	1	..	8
		2	„	10	..	11	..	11	2	..	9
	Total ..	..	..	1,620	..	1,240	37	1,277	44	80	1,051
	COUNTY SUMMARY.										
	Artillery ..	..	..	578	10	452	32	484	11	33	407
	Rifle	..	..	1,600	..	1,220	37	1,257	41	80	1,034
				2,178	10	1,672	69	1,741	52	113	1,441
			Staff	30	..	24	..	24	3	..	21
	Total ..	..	..	2,208	10	1,696	69	1,765	55	113	1,462

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency, Officers.	Who have obtained Certificates of Proficiency, Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Banffshire ..	Artillery ..	..	1	80	..	54	1	55	..	2	46
			2	80	..	48	15	63	1	2	48
			3	80	..	67	..	67	..	..	48
			4	80	..	63	1	64	1	2	49
			5	80	..	50	3	53	..	2	45
				400	..	282	20	302	2	8	236
		1	Staff	5	..	2	2	4	..	..	..
	Total ..	..	..	405	..	284	22	306	2	8	236
	Rifle	..	1	100	..	93	..	93	1	4	53
			2	100	..	69	1	70	2	4	59
			3	100	..	82	1	83	2	2	69
			5	100	..	100	..	100	1	1	71
			6	100	..	70	6	76	1	2	57
			7	159	..	139	2	141	4	7	113
				659	..	553	10	563	11	20	422
		1	Staff	7	..	13	1	14	4	..	12
	Total ..	..	..	666	..	566	11	577	15	20	434
	COUNTY SUMMARY.										
	Artillery ..	..	..	400	..	282	20	302	2	8	236
	Rifle	..	..	659	..	553	10	563	11	20	422
				1,059	..	835	30	865	13	28	658
			Staff	12	..	15	3	18	4	..	12
	Total ..	..	..	1,071	..	850	33	883	17	28	670
Bedfordshire ..	Rifle	..	1	159	..	114	..	114	2	8	74
			2	100	..	60	..	60	2	2	61
			4	100	..	62	..	62	2	5	59
			5	100	..	68	..	68	2	4	49
			6	100	30	112	2	114	2	5	78
			7	100	..	63	..	63	2	5	58
			8	100	..	42	..	42	2	4	37
				759	30	521	2	523	14	33	416
		1	Staff	7	..	7	..	7	2	..	6
	Total ..	..	..	766	30	528	2	530	16	33	422

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Berkshire ..	Rifle	..	1	1,300	..	1,060	7	1,067	30	59	969
Berwickshire ..	Artillery ..	..	1	80	..	50	3	53	2	..	43
			2	80	..	51	3	54	1	..	41
	Total ..	..	..	160	..	101	6	107	3	..	84
	Rifle	..	1	100	..	92	..	92	2	6	85
			2	100	..	75	3	78	2	6	69
			3	100	..	65	7	72	3	6	63
			4	100	..	57	9	66	2	6	56
			5	100	..	86	4	90	2	6	76
			6	100	..	66	2	68	4	6	57
			7	100	..	59	12	71	2	6	56
				700	..	500	37	537	17	42	462
		1	Staff	7	..	11	1	12	2	..	12
	Total ..	..	..	707	..	511	38	549	19	42	474
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	101	6	107	3	..	84
	Rifle	..	..	700	..	500	37	537	17	42	462
				860	..	601	43	644	20	42	546
			Staff	7	..	11	1	12	2	..	12
	Total ..	..	..	867	..	612	44	656	22	42	558
Berwick-on-Tweed	Artillery ..	..	1	160	..	108	4	112	4	7	91
	Rifle	..	1	100	..	70	3	73	3	4	46

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
				COUNTY SUMMARY.							
Berwick-on-Tweed—*cont.*	Artillery ..	..	..	160	..	108	4	112	4	7	91
	Rifle	..	..	100	..	70	3	73	3	4	46
	Total ..	..	..	260	..	178	7	185	7	11	137
Brecknockshire.	Rifle	..	1	159	..	104	3	107	3	5	75
			2	100	..	110	..	110	1	1	80
			3	100	..	75	..	75	..	3	57
			4	100	..	61	9	70	..	3	54
			5	100	..	60	2	62	1	2	40
			6	100	..	66	1	67	2	2	58
				659	..	476	15	491	7	16	364
		1	Staff	7	..	11	1	12	1	..	11
	Total ..	..	..	666	..	487	16	503	8	16	375
Buckingham ..	Rifle	..	1	600	..	514	2	516	11	44	443
Bute	Artillery ..	..	1	80	..	53	6	59	3	3	46
			2	80	..	43	6	49	2	3	36
	Total ..	..	..	160	..	96	12	108	5	6	82
	Rifle	..	1	100	30	67	2	69	3	3	56
				COUNTY SUMMARY.							
	Artillery ..	..	..	160	..	96	12	108	5	6	82
	Rifle	..	..	100	30	67	2	69	3	3	56
	Total ..	..	..	260	30	163	14	177	8	9	138

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Caithness-shire	Artillery ..	..	1	160	..	90	13	103	..	6	71
			2	160	..	106	12	118	3	3	87
			4	80	..	69	..	69	2	5	55
			5	80	..	72	1	73	2	1	57
			6	80	..	51	..	51	2	..	37
				560	..	388	26	414	9	15	307
		1	Staff	10	..	8	..	8	2	..	6
	Total ..	..	..	570	..	396	26	422	11	15	313
	Rifle	..	1	100	..	100	1	101	3	5	72
			2	159	..	92	..	92	1	5	57
			3	100	..	90	..	90	2	1	65
			4	100	..	73	2	75	1	5	55
	Total ..	..	..	459	..	355	3	358	7	16	249
	COUNTY SUMMARY.										
	Artillery ..	..	..	560	..	388	26	414	9	15	307
	Rifle	..	..	459	..	355	3	358	7	16	249
				1,019	..	743	29	772	16	31	556
			Staff	10	..	8	..	8	2	..	6
	Total ..	..	..	1,029	..	751	29	780	18	31	562
Cambridgeshire	Rifle	..	1	400	..	227	16	243	9	18	171
			2	100	..	66	..	66	3	5	55
			3	600	..	185	184	369	13	12	185
			4	100	..	41	15	56	2	4	39
			5	100	..	72	7	79	4	7	68
			6	100	..	61	4	65	3	6	54
				1,400	..	652	226	878	34	52	572
		1	Staff	14	..	13	1	14	2	..	13
	Total ..	..	..	1,414	..	665	227	892	36	52	585
Cardigan ..	Rifle	..	1	100	..	72	5	77	3	4	59

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Carmarthen ..	Rifle	..	1	100	..	62	2	64	2	4	47
			2	200	..	130	36	166	2	10	123
			5	200	..	127	33	160	4	5	108
	Total ..	..	..	500	..	319	71	390	8	19	278
Carnarvon ..	Artillery ..	..	1	80	..	36	14	50	..	4	35
	Rifle	..	2	100	..	..	..	..	..	..	..
			3	100	40	130	10	140	3	5	129
			4	100	60	62	18	80	2	4	60
			5	100	..	..	..	..	..	..	..
	Total ..	..	..	400	100	192	28	220	5	9	189

COUNTY SUMMARY.

	Artillery ..	..	..	80	..	36	14	50	..	4	35
	Rifle	..	..	400	100	192	28	220	5	9	189
	Total ..	..	..	480	100	228	42	270	5	13	224
Cheshire ..	Artillery ..	..	2	240	..	234	6	240	8	15	204
			3	80	..	72	1	73	1	5	60
			4	80	..	54	16	70	..	5	53
				400	..	360	23	383	9	25	317
		1	Staff	10	..	4	...	4	..	..	3
	Total ..	..	..	410	...	364	23	387	9	25	320
	Engineer ..	..	1	400	..	314	5	319	4	24	271

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Cheshire—*cont.*	Rifle	..	1	100	..	66	..	66	3	5	53
			2	100	30	94	3	97	3	5	90
			3	100	..	73	..	73	3	5	56
			4	100	..	94	..	94	3	5	76
			5	200	..	165	2	167	3	9	148
			6	400	..	294	6	300	10	16	252
			7	200	..	112	13	125	1	3	73
			8	300	..	268	6	274	8	16	261
			11	100	..	64	3	67	1	4	58
			12	200	..	148	1	149	1	9	124
			13	300	..	211	9	220	8	11	207
			14	159	..	66	6	72	..	2	51
			15	100	60	79	2	81	2	3	65
			16	100	..	91	..	91	2	6	85
			17	100	..	96	4	100	3	5	95
			18	100	..	81	..	81	3	5	75
			19	100	..	95	..	95	2	5	83
			20	100	..	100	..	100	2	5	84
			21	100	..	100	..	100	3	5	89
			22	200	..	176	1	177	2	9	138
			23	100	..	70	17	87	..	4	69
			24	100	..	69	7	76	2	3	66
			26	100	..	75	3	78	1	5	56
			27	100	..	69	1	70	2	4	51
			28	100	..	79	..	79	2	7	58
			29	100	..	100	..	100	3	6	91
			30	100	..	89	1	90	3	5	80
			31	100	..	90	..	90	2	5	87
			32	100	..	78	..	78	1	5	67
			33	159	..	104	4	108	3	6	92
			35	100	..	81	..	81	3	5	78
			36	259	..	257	2	259	6	14	229
				4,577	90	3,634	91	3,725	91	202	3,187
		1	Staff	10	..	10	..	10	2	..	9
		2	„	10	..	7	3	10	2	..	7
		3	„	7	..	11	1	12	2	..	9
		4	„	10	..	11	..	11	3	..	10
		5	„	10	..	13	..	13	3	..	13
	Total ..	..	..	4,624	90	3,686	95	3,781	103	202	3,235
				COUNTY SUMMARY.							
	Artillery ..	..	..	400	..	360	23	383	9	25	317
	Engineer ..	..	..	400	..	314	5	319	4	24	271
	Rifle	..	..	4,577	90	3,634	91	3,725	91	202	3,187
				5,377	90	4,308	119	4,427	104	251	3,775
			Staff	57	..	56	4	60	12	..	51
	Total ..	..	..	5,434	90	4,364	123	4,487	116	251	3,826

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Cinque Ports ..	Artillery ..	..	1	160	..	91	12	103	5	12	66
			2	80	..	49	2	51	2	3	47
			3	160	30	102	1	103	1	9	103
			4	80	..	60	..	60	2	5	42
			5	49	..	28	22	50	..	4	38
			6	320	..	156	46	202	4	14	159
			7	80	..	58	5	63	2	5	56
			8	129	..	88	7	95	1	7	75
			9	160	..	116	15	131	4	9	92
				1,218	30	748	110	858	21	68	678
		1	Staff	12	..	8	..	8	2	..	7
	Total ..	..	..	1,230	30	756	110	866	23	68	685
	Rifle		1	500	..	228	17	245	6	20	208
			3	100	..	52	9	61	1	5	52
				600	..	280	26	306	7	25	260
		1	Staff	7	..	7	..	7	2	..	7
	Total ..	..	..	607	..	287	26	313	9	25	267
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,218	30	748	110	858	21	68	678
	Rifle	..	..	600	..	280	26	306	7	25	260
				1,818	30	1,028	136	1,164	28	93	938
			Staff	19	..	15	..	15	4	..	14
	Total ..	..	..	1,837	30	1,043	136	1,179	32	93	952
Clackmannan ..	Rifle	..	1	400	..	371	6	377	14	14	326
			2	100	..	73	..	73	2	4	70
				500	..	444	6	450	16	18	396
		1	Staff	7	..	11	..	11	3	..	11
	Total ..	..	..	507	..	455	6	461	19	18	407

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Cornwall ..	Artillery ..	..	1	80	50	96	..	96	2	5	36
			2	80	..	50	..	50	1	5	43
			3	80	..	50	1	51	2	3	42
			4	80	..	55	..	55	1	4	55
			5	80	..	53	1	54	1	3	43
			7	49	..	41	..	41	1	..	35
			8	80	..	79	1	80	3	5	75
			10	80	..	79	1	80	1	5	67
			11	80	..	38	5	43	1	1	38
			12	80	..	75	..	75	2	4	58
			13	80	..	68	..	68	3	5	61
				849	50	684	9	693	18	40	553
		1	Staff	10	..	12	..	12	1	..	12
	Total ..	..	..	859	50	696	9	705	19	40	565
	Rifle	..	1	100	50	150	..	150	3	6	139
			2	100	30	130	..	130	3	6	56
			3	100	30	103	2	105	3	6	78
			4	100	30	88	..	88	3	5	65
			5	100	60	129	..	129	3	5	123
			6	100	..	82	1	83	2	2	79
			7	100	..	57	7	64	2	6	54
			9	100	..	80	1	81	2	5	70
			10	100	60	97	..	97	2	3	79
			11	100	..	99	..	99	3	5	69
			12	100	30	100	..	100	3	6	77
			13	100	25	85	..	85	3	5	81
			15	100	..	87	4	91	3	3	55
			16	100	..	71	3	74	1	2	57
			17	100	..	100	..	100	3	5	77
			18	100	..	57	7	64	2	3	52
			19	100	..	72	..	72	1	3	59
			20	100	..	98	2	100	2	6	82
			21	100	..	66	9	75	2	4	54
			22	100	..	68	1	69	2	3	60
				2,000	315	1,819	37	1,856	48	89	1,466
		1	Staff	10	..	12	3	15	2	..	10
		2	„	10	..	14	..	14	2	..	11
	Total ..	..	..	2,020	315	1,845	40	1,885	52	89	1,487

COUNTY SUMMARY.

Artillery ..	..	..	849	50	684	9	693	18	40	553
Rifle	..	..	2,000	315	1,819	37	1,856	48	89	1,466
			2,849	365	2,503	46	2,549	66	129	2,019
		Staff	30	..	38	3	41	5	..	33
Total ..	..	..	2,879	365	2,541	49	2,590	71	129	2,052

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Cromarty ..	Artillery ..	..	1	80	..	58	..	58	2	1	42
Cumberland ..	Artillery ..	..	1	80	..	80	..	80	3	7	57
			2	160	..	140	2	142	2	12	100
			3	80	..	80	..	80	2	6	62
				320	..	300	2	302	7	25	219
		1	Staff	5	..	4	..	4	..	..	3
	Total ..	..	..	325	..	304	2	306	7	25	222
	Rifle	..	1	300	..	188	10	198	7	12	167
			2	100	..	76	..	76	2	6	66
			3	100	..	80	3	83	3	4	72
			4	100	..	83	1	84	2	4	78
			5	200	..	139	6	145	6	8	132
			6	100	..	62	5	67	2	3	54
			7	100	..	69	13	82	2	5	65
			8	100	..	85	..	85	2	5	71
			10	100	..	93	1	94	..	5	80
			11	100	..	84	2	86	3	5	71
				1,300	..	959	41	1,000	29	57	856
		1	Staff	12	..	14	..	14	2	..	14
	Total ..	..	..	1,312	..	973	41	1,014	31	57	870
	COUNTY SUMMARY.										
	Artillery ..	..	..	320	..	300	2	302	7	25	219
	Rifle	..	..	1,300	..	959	41	1,000	29	57	856
				1,620	..	1,259	43	1,302	36	82	1,075
			Staff	17	..	18	..	18	2	..	17
	Total ..	..	..	1,637	..	1,277	43	1,320	38	82	1,092
Denbigh ..	Rifle	..	1	159	..	157	2	159	5	10	128
			2	100	..	67	5	72	2	5	69
			3	100	..	87	8	95	2	6	78
			4	59	..	55	..	55	1	2	32
			5	100	..	95	2	97	3	6	73
			6	100	..	91	10	101	2	6	80
			7	59	..	32	4	36	1	1	30
			9	100	..	59	10	69	2	4	54
				777	..	643	41	684	18	40	544
		1	Staff	7	..	8	..	8	2	..	7
	Total ..	..	..	784	..	651	41	692	20	40	551

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Derbyshire ..	Rifle	..	1	100	..	100	..	100	3	5	82
			3	100	..	80	3	83	2	2	80
			4	100	..	93	..	93	3	3	83
			5	200	..	175	..	175	5	9	132
			7	100	..	69	6	75	1	4	69
			8	100	..	66	6	72	2	4	65
			9	100	..	74	5	79	2	..	65
			10	100	..	66	9	75	3	2	51
			11	100	..	79	5	84	1	3	79
			12	200	..	142	2	144	4	8	126
			13	159	..	130	..	130	3	7	100
			15	200	..	172	3	175	4	8	139
			17	100	..	81	..	81	1	3	80
			18	100	..	96	1	97	2	3	93
			19	100	..	96	1	97	2	5	80
			20	100	..	85	1	86	1	3	69
			21	100	..	56	4	60	1	..	47
			22	100	..	85	..	85	3	5	77
			23	300	..	294	4	298	5	13	297
				2,459	..	2,039	50	2,089	48	87	1,814
		1	Staff	10	..	14	1	15	3	..	12
		3	„	10	..	18	..	18	4	..	17
	Total ..	..	..	2,479	..	2,071	51	2,122	55	87	1,843
Devonshire ..	Artillery ..	..	1	80	..	78	2	80	1	5	73
			3	80	..	61	6	67	2	3	61
			4	80	..	47	2	49	2	5	44
			5	160	..	156	4	160	4	10	131
			6	80	..	39	7	46	3	5	32
			7	80	..	49	2	51	2	5	44
			8	80	..	50	7	57	1	5	53
			9	80	..	54	1	55	1	5	46
			10	80	..	59	1	60	2	3	50
			11	80	..	34	23	57	..	5	45
			12	320	..	296	3	299	7	16	211
			13	160	50	198	5	203	5	6	188
			14	80	..	42	2	44	2	5	39
				1,440	50	1,163	65	1,228	32	78	1,017
		1	Staff	10	..	9	..	9	2	..	9
		2	„	10	..	7	..	7	..	..	5
	Total ..	..	..	1,460	50	1,179	65	1,244	34	78	1,031
	Engineer ..	..	1	200	..	140	27	167	3	9	130
	Mounted Rifle	..	1	60	..	..	46	46	..	..	..

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Devonshire—*cont.*	Rifle	..	1	1,159	..	357	69	426	7	23	337
			2	600	..	400	23	423	18	25	307
			3	360	..	196	13	209	7	15	161
			5	100	..	60	..	60	3	5	69
			6	200	..	200	..	200	2	10	146
			8	100	..	57	7	64	..	4	56
			9	100	..	76	1	77	2	4	77
			10	159	..	97	4	101	1	5	88
			11	100	..	56	7	63	3	..	56
			13	100	..	100	..	100	3	5	97
			14	100	..	81	4	85	..	6	80
			17	100	..	90	2	92	1	5	76
			18	200	..	194	3	197	2	10	178
			21	200	..	179	14	193	2	12	177
			22	200	..	161	..	161	6	11	147
			23	59	..	49	..	49	..	4	46
			25	100	..	52	13	65	3	4	52
			26	100	..	60	..	60	2	5	52
			27	100	..	55	13	68	1	5	55
			28	100	..	100	..	100	..	5	79
				4,177	..	2,620	173	2,793	63	163	2,336
		1	Staff	10	..	10	..	10	3	..	10
		2	„	12	..	7	1	8	1	..	8
		3	„	7	..	7	2	9	1	..	7
		4	„	7	..	9	1	10	1	..	9
	Total ..	..	..	4,213	..	2,653	177	2,830	69	163	2,370
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,440	50	1,163	65	1,228	32	78	1,017
	Engineer ..	..	..	200	..	140	27	167	3	9	130
	Mounted Rifle	..	..	60	..	..	46	46	..	..	..
	Rifle	..	..	4,177	..	2,620	173	2,793	63	163	2,336
				5,877	50	3,923	311	4,234	98	250	3,483
			Staff	56	..	49	4	53	8	..	48
	Total ..	..	..	5,933	50	3,972	315	4,287	106	250	3,531
Dorsetshire ..	Artillery ..	..	1	80	..	60	..	60	1	5	43
			4	129	..	83	19	102	3	8	80
			5	80	..	54	1	55	1	3	43
			6	49	..	22	8	30	1	5	22
	Total ..	..	..	338	..	219	28	247	6	21	188

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Dorsetshire—*cont.*	Rifle	..	1	159	..	121	1	122	2	6	97
			2	100	..	66	2	68	1	4	49
			3	100	..	84	..	84	3	4	80
			4	100	..	86	3	89	2	4	69
			5	100	..	70	6	76	1	4	72
			6	100	..	70	5	75	2	5	53
			7	100	..	62	4	66	1	4	51
			8	100	..	49	11	60	1	2	46
			9	100	..	74	..	74	3	6	56
			10	59	..	23	8	31	1	3	20
			11	100	..	66	..	66	2	4	44
			12	100	..	41	17	58	1	4	37
				1,218	..	812	57	869	20	50	674
		1	Staff	12	..	17	..	17	3	..	16
	Total ..	..	..	1,230	..	829	57	886	23	50	690
	COUNTY SUMMARY.										
	Artillery ..	..	..	338	..	219	28	247	6	21	188
	Rifle	..	..	1,218	..	812	57	869	20	50	674
				1,556	..	1,031	85	1,116	26	71	862
		1	Staff	12	..	17	..	17	3	..	16
	Total ..	..	..	1,568	..	1,048	85	1,133	29	71	878
Dumbarton ..	Artillery ..	..	1	80	..	65	7	72	3	5	55
			3	160	..	96	1	97	2	7	90
	Total ..	..	..	240	..	161	8	169	5	12	145
	Rifle	..	1	100	..	62	6	68	3	5	55
			2	159	..	79	1	80	2	4	75
			3	100	30	91	1	92	2	5	70
			4	100	60	93	3	96	3	6	85
			5	100	..	93	..	93	2	5	85
			6	100	30	109	3	112	4	7	105
			7	100	..	62	2	64	3	5	60
			9	100	..	57	5	62	2	4	3
			10	159	..	114	7	121	5	8	105
			11	100	..	68	4	72	2	5	66
			13	100	..	81	..	81	2	5	68
			14	100	..	90	4	94	2	5	83
				1,318	120	999	36	1,035	32	64	899
		1	Staff	10	..	15	1	16	..	..	16
	Total ..	..	..	1,328	120	1,014	37	1,051	32	64	915

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
				COUNTY SUMMARY.							
Dumbarton—*cont.*	Artillery ..	..	..	240	..	161	8	169	5	12	145
	Rifle	..	..	1,318	120	999	36	1,035	32	64	899
				1,558	120	1,160	44	1,204	37	76	1,044
		1	Staff	10	..	15	1	16	..	..	16
	Total ..	..	..	1,568	120	1,175	45	1,220	37	76	1,060
Dumfries ..	Mounted Rifle	..	1	60	..	36	7	43	2	4	36
	Rifle	..	1	200	..	153	2	155	4	11	124
			2	100	..	83	4	87	2	4	63
			3	100	..	62	6	68	3	4	60
			4	100	..	49	10	59	2	5	48
			5	100	..	62	4	66	1	5	61
			6	100	..	70	1	71	3	4	60
			7	100	..	79	..	79	4	5	76
			8	100	..	96	4	100	3	4	81
			9	100	..	83	..	83	1	5	79
				1,000	..	737	31	768	23	47	652
		1	Staff	10	..	10	..	10	1	..	11
	Total ..	..	..	1,010	..	747	31	778	24	47	663
				COUNTY SUMMARY.							
	Mounted Rifle	..	..	60	..	36	7	43	2	4	36
	Rifle	..	..	1,000	..	737	31	768	23	47	652
				1,060	..	773	38	811	25	51	688
			Staff	10	..	10	..	10	1	..	11
	Total ..	..	..	1,070	..	783	38	821	26	51	699
Durham ..	Artillery ..	..	1	160	50	162	9	171	..	8	117
			2	960	..	698	3	701	24	50	640
			3	320	..	226	6	232	6	17	193
			4	320	..	268	..	268	4	17	192
	Total ..	..	..	1,760	50	1,354	18	1,372	34	92	1,142
	Engineer ..	..	1	800	..	726	60	786	9	34	523
		1	Staff	10	..	1	..	1	..	..	1
				810	..	727	60	787	9	34	524
	Rifle	..	1	300	..	206	17	223	6	12	164
			3	600	..	377	27	404	10	20	255
			4	259	..	157	4	161	1	8	131
	Carried forward	..		1,159	..	740	48	788	17	40	550

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
	Bt. forward ..	..	..	1,159	..	740	48	788	17	40	550
Durham—*cont.*	Rifle	..	6	300	..	281	12	293	..	15	237
			7	300	..	179	13	192	7	16	156
			8	300	..	145	43	188	2	14	150
			9	200	..	133	19	152	..	5	92
			10	100	..	87	..	87	2	2	81
			11	100	..	63	4	67	2	5	55
			12	100	..	60	3	63	2	4	51
			13	200	..	153	2	155	3	11	145
			14	300	..	166	21	187	7	12	144
			15	200	..	105	17	122	1	9	85
			16	100	..	60	..	60	2	4	53
			20	100	..	63	3	66	..	5	57
			21	100	..	61	5	66	3	4	56
				3,559	..	2,296	190	2,486	48	146	1,912
		1	Staff	10	..	9	3	12	2	..	10
		2	„	7	..	8	..	8	2	..	8
		3	„	7	..	5	1	6	..	..	5
		4	„	7	..	5	..	5	..	..	4
	Total ..	..	..	3,590	..	2,323	194	2,517	52	146	1,939
	COUNTY SUMMARY.										
	Artillery	..	..	1,760	50	1,354	18	1,372	34	92	1,142
	Engineer	..	..	800	..	726	60	786	9	34	523
	Rifle	..	..	3,559	..	2,296	190	2,486	48	146	1,912
				6,119	50	4,376	268	4,644	91	272	3,577
			Staff	41	..	28	4	32	4	..	28
	Total ..	..	..	6,160	50	4,404	272	4,676	95	272	3,605
Edinburgh ..	Artillery	..	1	720	..	478	48	526	10	33	401
	Rifle	..	1	2,500	..	1,949	77	2,026	73	115	1,679
			3	500	60	484	18	502	13	25	343
	Total ..	..	..	3,000	60	2,433	95	2,528	86	140	2,022
	COUNTY SUMMARY.										
	Artillery	..	..	720	..	478	48	526	10	33	401
	Rifle	..	..	3,000	60	2,433	95	2,528	86	140	2,022
	Total ..	..	..	3,720	60	2,911	143	3,054	96	173	2,423

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Elginshire ..	Artillery ..	..	1	80	..	54	6	60	..	3	40
			2	80	..	62	..	62	1	3	44
	Total ..	..	..	160	..	116	6	122	1	6	84
	Rifle	..	1	200	..	145	5	150	4	3	124
			2	100	..	100	..	100	2	5	69
			3	100	..	100	..	100	2	5	71
			4	100	..	64	2	66	2	4	56
			5	100	..	64	6	70	1	4	56
			6	100	..	50	16	66	2	3	55
			7	159	..	125	9	134	5	6	75
			8	100	..	80	..	80	2	5	77
			9	100	..	86	..	86	3	2	76
				1,059	..	814	38	852	23	37	659
		1	Staff	10	..	15	..	15	3	..	13
	Total ..	..	..	1,069	..	829	38	867	26	37	672
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	116	6	122	1	6	84
	Rifle	..	..	1,059	..	814	38	852	23	37	659
				1,219	..	930	44	974	24	43	743
			Staff	10	..	15	..	15	3	..	13
	Total ..	..	..	1,229	..	945	44	989	27	43	756
Essex	Artillery ..	..	1	80	..	62	3	65	2	5	61
			2	129	..	64	20	84	..	6	70
			3	640	..	440	22	462	13	33	375
	Total ..	..	..	849	..	566	45	611	15	44	506
	Rifle	..	1	200	..	115	10	125	2	9	88
			2	300	..	166	25	191	5	13	141
			3	200	..	70	46	116	2	5	63
			4	200	..	170	..	170	4	11	90
			5	800	..	655	1	656	18	30	461
			6	200	..	181	1	182	4	11	121
			7	100	..	..	..	..	..	..	..
			9	600	..	519	11	530	10	29	392
			10	100	..	49	14	63	..	3	40
			12	100	..	94	..	94	3	6	76
			15	100	..	61	4	65	3	4	52
			17	100	..	48	1	49	2	4	47
			18	100	..	47	6	53	2	4	34
	Carried forward		..	3,100	..	2,175	119	2,294	55	129	1,605

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
	Bght. forward	..	..	3,100	..	2,175	119	2,294	55	129	1,605
Essex—*cont.* ..	Rifle	..	22	100	..	29	31	60	1	2	23
			23	100	..	77	12	89	2	5	65
				3,300	..	2,281	162	2,443	58	136	1,693
		1	Staff	10	..	9	1	10	2	..	10
		3	„	12	..	10	1	11	2	..	10
	Total ..	..	..	3,322	..	2,300	164	2,464	62	136	1,713
	COUNTY SUMMARY.										
	Artillery ..	..	..	849	..	566	45	611	15	44	506
	Rifle	..	..	3,300	..	2,281	162	2,443	58	136	1,693
				4,149	..	2,847	207	3,054	73	180	2,199
			Staff	22	..	19	2	21	4	..	20
	Total ..	..	..	4,171	..	2,866	209	3,075	77	180	2,219
Fife	Light Horse ..	..	1	240	..	122	32	154	5	..	158
	Artillery ..	..	1	80	..	59	2	61	2	4	50
			2	80	..	60	4	64	1	2	51
			3	80	..	68	..	68	2	4	72
			4	80	..	48	2	50	..	..	44
			5	129	30	138	6	144	5	6	130
			6	49	..	33	1	34	..	..	31
			7	80	..	55	8	63	2	2	59
			8	80	..	64	..	64	2	3	62
			9	80	..	67	6	73	1	4	63
			10	80	30	104	1	105	2	4	87
			11	80	..	54	5	59	1	4	57
				898	60	750	35	785	18	33	706
		1	Staff	12	..	7	..	7	1	..	7
	Total ..	..	..	910	60	757	35	792	19	33	713
	Rifle	..	1	200	..	135	7	142	4	8	118
			2	200	..	118	6	124	4	8	105
			3	100	..	55	17	72	1	..	48
			4	100	..	81	1	82	1	3	75
	Carried forward	..		600	..	389	31	420	10	19	346

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Bt. forward ..			600	..	389	31	420	10	19	346
Fife—*cont.* ..	Rifle	..	5	100	30	84	9	93	2	6	81
			6	200	..	136	7	143	4	9	122
			7	100	..	86	1	87	3	5	79
			8	100	..	100	..	100	2	5	89
			9	100	..	54	10	64	1	5	49
				1,200	30	849	58	907	22	49	766
		1	Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	1,210	30	862	59	921	23	49	779
	COUNTY SUMMARY.										
	Light Horse ..	..	..	240	..	122	32	154	5	..	158
	Artillery ..	..	..	898	60	750	35	785	18	33	706
	Rifle	..	..	1,200	30	849	58	907	22	49	766
				2,338	90	1,721	125	1,846	45	82	1,630
			Staff	22	..	20	1	21	2	..	20
	Total ..	..	..	2,360	90	1,741	126	1,867	47	82	1,650
Flint	Engineer ..	..	1	100	50	115	15	130	3	5	115
	Rifle	..	1	100	40	140	..	140	2	4	95
			2	100	..	74	7	81	1	5	70
			3	100	..	62	7	69	2	3	60
			4	100	..	82	2	84	1	4	76
			5	100	..	97	3	100	2	6	95
			6	100	..	87	6	93	..	3	75
				600	40	542	25	567	8	25	471
		1	Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	610	40	555	26	581	9	25	484
	COUNTY SUMMARY.										
	Engineer ..	..	..	100	50	115	15	130	3	5	115
	Rifle	..	..	600	40	542	25	567	8	25	471
				700	90	657	40	697	11	30	586
			Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	710	90	670	41	711	12	30	599

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Forfarshire ..	Light Horse ..	..	1	60	..	78	..	78	2	4	78
	Artillery ..	..	1	240	..	210	11	221	6	13	185
			2	80	..	44	8	52	1	4	35
			3	160	..	144	..	144	5	9	94
			4	480	..	318	27	345	10	25	251
				960	..	716	46	762	22	51	565
		1	Staff	10	..	4	..	4	1	..	3
	Total ..	..	..	970	..	720	46	766	23	51	568
	Rifle	..	1	800	..	448	41	489	15	35	412
			2	200	..	151	9	160	6	11	132
			3	400	..	250	11	261	6	14	228
			5	200	..	101	6	107	4	11	95
			7	200	..	123	7	130	3	7	110
			8	100	..	48	12	60	2	4	42
			9	100	..	41	19	60	2	4	44
			10	600	..	432	5	437	10	24	303
			12	100	..	89	4	93	2	5	75
			13	100	..	57	7	64	2	4	53
				2,800	..	1,740	121	1,861	52	119	1,494
		1	Staff	12	..	14	..	14	2	..	14
	Total ..	..	..	2,812	..	1,754	121	1,875	54	119	1,508
	COUNTY SUMMARY.										
	Light Horse ..	..	..	60	..	78	..	78	2	4	78
	Artillery ..	..	..	960	..	716	46	762	22	51	565
	Rifle	..	..	2,800	..	1,740	121	1,861	52	119	1,494
				3,820	..	2,534	167	2,701	76	174	2,137
			Staff	22	..	18	..	18	3	..	17
	Total ..	..	..	3,842	..	2,552	167	2,719	79	174	2,154
Glamorgan ..	Artillery ..	..	1	320	..	307	9	316	3	17	221
			2	160	50	191	19	210	3	10	152
			3	720	50	744	9	753	18	41	520
				1,200	100	1,242	37	1,279	24	68	893
		1	Staff	12	..	8	..	8	2	..	6
	Total ..	..	..	1,212	100	1,250	37	1,287	26	68	899

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Glamorgan—*cont.*	Rifle	..	1	200	..	124	2	126	4	9	122
			2	200	..	107	2	109	2	5	105
			3	500	..	452	2	454	12	19	371
			4	300	..	298	2	300	5	16	248
			7	200	..	139	3	142	3	11	147
			8	100	..	89	2	91	2	5	63
			9	100	..	99	..	99	1	6	83
			10	159	..	133	..	133	3	8	89
			11	100	..	73	2	75	3	7	73
			12	200	..	151	27	178	5	9	156
			13	100	..	82	5	87	2	6	74
			14	100	..	100	..	100	2	5	92
			15	200	..	133	11	144	4	11	122
			16	500	..	407	14	421	10	20	282
			18	100	..	76	..	76	1	5	73
			19	100	..	64	7	71	2	2	62
				3,159	..	2,527	79	2,606	61	144	2,162
		1	Staff	12	..	8	1	9	1	..	8
		2	„	12	..	12	2	14	1	..	11
	Total ..	..	..	3,183	..	2,547	82	2,629	63	144	2,181

COUNTY SUMMARY.

	Artillery ..	..	..	1,200	100	1,242	37	1,279	24	68	893
	Rifle	..	..	3,159	..	2,527	79	2,606	61	144	2,162
				4,359	100	3,769	116	3,885	85	212	3,055
			Staff	36	..	28	3	31	4	..	25
	Total ..	..	..	4,395	100	3,797	119	3,916	89	212	3,080
Gloucestershire	Artillery ..	..	1	480	..	394	25	419	13	21	332
			2	80	..	68	23	91	2	2	59
			3	80	20	78	3	81	..	2	61
				640	20	540	51	591	15	25	452
		1	Staff	12	..	5	..	5	..	..	5
	Total ..	..	..	652	20	545	51	596	15	25	457

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Gloucestershire —*cont.*	Engineer ..	..	1	300	..	253	12	265	2	15	242
		..	2	600	..	597	3	600	10	35	487
				900	..	850	15	865	12	50	729
		1	Staff	12	..	6	..	6	1	..	6
	Total ..	..	..	912	..	856	15	871	13	50	735
	Rifle	..	1	1,000	..	610	89	699	20	43	581
			2	100	..	58	9	67	..	4	55
			3	100	30	76	2	78	3	6	74
			5	100	30	80	6	86	3	5	78
			8	100	..	..	..	..	..	..	..
			9	100	..	60	5	65	..	1	59
			10	200	..	98	23	121	1	3	81
			11	100	..	53	9	62	2	4	50
			12	200	..	115	20	135	2	4	112
			15	100	..	63	4	67	1	3	60
			16	100	..	46	15	61	..	4	45
				2,200	60	1,259	182	1,441	32	77	1,195
		1	Staff	12	..	15	1	16	1	..	15
	Total ..	..	..	2,212	60	1,274	183	1,457	33	77	1,210
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	20	540	51	591	15	25	452
	Engineer. ..	..	..	900	..	850	15	865	12	50	729
	Rifle	..	..	2,200	60	1,259	182	1,441	32	77	1,195
				3,740	80	2,649	248	2,897	59	152	2,376
			Staff	36	..	26	1	27	2	..	26
	Total ..	..	..	3,776	80	2,675	249	2,924	61	152	2,402
Haddington ..	Artillery ..	..	1	80	..	52	8	60	2	3	48
	Rifle	..	1	100	..	53	7	60	3	1	52
			3	100	30	66	4	70	2	5	65
			4	100	..	57	7	64	3	3	50
			5	100	..	63	5	68	2	4	48
			6	59	..	46	2	48	2	1	36
			7	100	..	60	2	62	..	..	45
				559	30	345	27	372	12	14	296
		1	Staff	8	..	10	1	11	2	..	10
	Total ..	..	..	567	30	355	28	383	14	14	306

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
				COUNTY SUMMARY.							
Haddington—*cont.*	Artillery ..	..	..	80	..	52	8	60	2	3	48
	Rifle	..	..	559	30	345	27	372	12	14	296
				639	30	397	35	432	14	17	344
			Staff	8	..	10	1	11	2	..	10
	Total ..	..	..	647	30	407	36	443	16	17	354
Hampshire ..	Artillery ..	..	1	160	..	158	2	160	5	9	115
			2	640	..	466	10	476	12	35	292
			4	80	50	121	1	122	1	5	90
				880	50	745	13	758	18	49	497
		1	Staff	12	..	7	..	7	..	..	7
	Total ..	..	..	892	50	752	13	765	18	49	504
	Engineer ..	..	1	100	30	130	..	130	1	8	131
	Mounted Rifle	..	1	60	..	20	12	32	3	2	19
	Rifle	..	1	200	..	107	15	122	2	9	120
			2	400	..	306	14	320	8	21	218
			3	100	..	54	8	62	2	5	51
			4	100	..	55	5	60	1	4	44
			5	500	..	324	..	324	9	20	248
			6	200	..	153	..	153	3	10	131
			7	100	..	57	1	58	1	6	55
			8	100	..	41	21	62	1	5	40
			10	100	..	55	6	61	..	4	51
			11	100	..	59	6	65	1	5	58
			12	100	..	84	2	86	3	6	79
			13	100	..	50	18	68	2	5	42
			14	100	..	39	22	61	..	4	42
			15	100	..	56	6	62	2	6	51
			16	100	..	51	10	61	1	4	46
			19	200	..	137	20	157	2	10	114
			21	100	..	55	6	61	3	5	54
			23	100	..	60	1	61	2	..	57
			24	100	..	62	4	66	2	4	60
			25	100	..	69	12	81	2	6	49
				3,000	..	1,874	177	2,051	47	139	1,610
		1	Staff	10	..	12	..	12	3	..	12
		2	„	12	..	10	1	11	1	..	7
		4	„	10	..	12	..	12	1	..	10
	Total ..	..	..	3,032	..	1,908	178	2,086	52	139	1,639

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
	COUNTY SUMMARY.										
Hampshire—*cont.*	Artillery ..	..	..	880	50	745	13	758	18	49	497
	Engineer ..	..	..	100	30	130	..	130	1	8	131
	Mounted Rifle	..	..	60	..	20	12	32	3	2	19
	Rifle	..	..	3,000	..	1,874	177	2,051	47	139	1,610
				4,040	80	2,769	202	2,971	69	198	2,257
			Staff	44	..	41	1	42	5	..	36
	Total ..	..	..	4,084	80	2,810	203	3,013	74	198	2,293
Haverfordwest	Rifle	..	1	800	..	230	29	259	5	15	224
Hereford ..	Rifle	..	1	100	..	82	..	82	2	6	63
			2	159	..	123	8	131	..	9	77
			3	100	..	61	..	61	2	4	54
			4	100	..	45	16	61	2	5	43
			6	100	..	70	..	70	..	4	60
			7	100	..	48	14	62	1	4	48
			8	159	..	153	..	153	2	8	101
				818	..	582	38	620	9	40	446
		1	Staff	10	..	13	..	13	2	..	13
	Total ..	..	..	828	..	595	38	633	11	40	459
Hertfordshire ..	Light Horse ..	..	1	120	..	88	..	88	5	10	73
	Rifle	..	1	200	..	104	13	117	3	10	109
			2	100	..	76	6	82	3	5	63
			3	100	..	91	4	95	3	3	81
			4	100	..	55	4	59	3	3	51
			5	100	..	85	2	87	2	3	62
			6	100	..	47	14	61	2	1	45
			7	100	..	76	4	80	3	5	63
			9	100	..	49	14	63	1	5	52
			10	100	..	30	30	60	1	1	29
			14	100	..	63	14	77	..	..	63
				1,100	..	676	105	781	21	36	618
		1	Staff	5	..	8	..	8	1	..	8
		2	„	7	..	10	..	10	3	..	9
	Total ..	..	..	1,112	..	694	105	799	25	36	635

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
				COUNTY SUMMARY.							
Hertfordshire —*cont.*	Light Horse ..	..	..	120	..	88	..	88	5	10	73
	Rifle	..	..	1,100	..	676	105	781	21	36	618
				1,220	..	764	105	869	26	46	691
			Staff	12	..	18	..	18	4	..	17
	Total ..	..	..	1,232	..	782	105	887	30	46	708
Huntingdon ..	Light Horse ..	..	1	240	..	117	68	185	8	4	120
	Rifle	..	1	200	..	102	19	121	4	2	101
				COUNTY SUMMARY.							
	Light Horse ..	..	..	240	..	117	68	185	8	4	120
	Rifle	..	..	200	..	102	19	121	4	2	101
	Total ..	..	..	440	..	219	87	306	12	6	221
Inverness ..	Artillery ..	..	1	480	..	360	12	372	12	29	373
	Rifle	..	1	100	..	100	..	100	3	5	88
			2	100	..	93	7	100	3	4	84
			3	100	..	100	..	100	2	6	88
			4	100	..	87	..	87	2	5	78
			5	100	..	100	..	100	2	6	84
			6	100	..	93	7	100	..	2	69
			7	100	..	76	24	100	..	4	69
			8	100	..	83	..	83	1	3	67
			9	100	..	87	7	94	2	3	71
			10	100	..	76	1	77	2	5	64
				1,000	..	895	46	941	17	43	762
			Staff	10	..	12	..	12	2	..	11
	Total ..	..	..	1,010	..	907	46	953	19	43	773

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
				COUNTY SUMMARY.							
Inverness—*cont.*	Artillery ..	..	..	480	..	360	12	372	12	29	373
	Rifle	..	..	1,000	..	895	46	941	17	43	762
				1,480	..	1,255	58	1,313	29	72	1,135
			Staff	10	..	12	..	12	2	..	11
	Total ..	..	..	1,490	..	1,267	58	1,325	31	72	1,146
Isle of Man ..	Rifle	..	2	100	..	77	4	81	2	3	63
Isle of Wight ..	Rifle	..	1	200	..	122	5	127	2	10	112
			2	200	..	161	9	170	2	11	114
			4	100	..	68	4	72	1	4	67
			5	100	30	130	1	131	3	6	112
			7	100	..	59	11	70	1	4	52
				700	30	540	30	570	9	35	457
		1	Staff	7	..	10	..	10	2	..	10
	Total ..	..	..	707	30	550	30	580	11	35	467
Kent	Artillery ..	..	1	160	30	104	7	111	4	11	90
			2	160	..	63	1	64	2	6	59
			5	160	..	81	20	101	5	9	82
			9	400	50	424	26	450	9	25	355
	Carried forward ..			880	80	672	54	726	20	51	586

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Bght. forward	..	..	880	80	672	54	726	20	51	586
Kent—*cont.* ..	Artillery ..	..	10	480	..	362	18	380	9	29	330
			11	80	..	47	3	50	2	5	43
			12	80	50	93	3	96	2	7	79
			13	240	..	202	8	210	4	16	122
				1,760	130	1,376	86	1,462	37	108	1,160
		1	Staff	10	..	5	1	6	1	..	4
	Total ..	..	..	1,770	130	1,381	87	1,468	38	108	1,164
	Rifle	..	1	200	60	176	2	178	5	11	167
			3	200	..	106	14	120	5	7	98
			4	100	..	67	10	77	3	5	56
			5	1,100	..	748	11	759	22	54	638
			12	100	..	92	6	98	3	6	79
			13	100	..	100	6	106	2	7	85
			14	100	..	72	6	78	3	6	69
			17	100	30	111	..	111	1	6	86
			18	159	..	101	1	102	2	4	87
			23	100	..	52	8	60	1	5	49
			25	100	30	106	10	116	3	7	100
			26	900	..	520	38	558	19	38	506
			27	200	..	95	17	112	1	7	79
			28	100	..	68	9	77	1	5	53
			31	100	..	84	2	86	1	6	72
			33	100	..	53	7	60	3	5	47
			34	100	..	63	4	67	2	5	61
			35	100	..	54	8	62	1	6	53
			37	100	..	62	4	66	2	7	61
			40	100	..	63	7	70	1	6	59
			41	100	..	79	2	81	1	6	67
			42	100	..	61	9	70	2	4	59
			43	100	..	54	12	66	2	4	58
				4,459	120	2,987	193	3,180	86	217	2,689
		1	Staff	10	..	11	2	13	1	..	12
		2	„	10	..	16	..	16	4	..	15
		5	„	7	..	10	..	10	1	..	10
	Total ..	..	..	4,486	120	3,024	195	3,219	92	217	2,726

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
				COUNTY SUMMARY.							
Kent—*cont.* ..	Artillery ..	..	..	1,760	130	1,376	86	1,462	37	108	1,160
	Rifle	..	..	4,459	120	2,987	193	3,180	86	217	2,689
				6,219	250	4,363	279	4,642	123	325	3,849
			Staff	37	..	42	3	45	7	..	41
	Total ..	..	..	6,256	250	4,405	282	4,687	130	325	3,890
Kincardine ..	Artillery ..	..	1	80	..	49	28	77	1	..	40
			2	80	..	46	4	50	2	5	42
			3	80	..	43	6	49	1	3	35
			4	80	..	48	3	51	1	4	37
	Total ..	..	..	320	..	186	41	227	5	12	154
	Rifle	..	2	100	..	89	1	90	4	6	73
			5	100	..	33	33	66	1	1	33
			6	100	..	76	..	76	3	6	57
			7	100	..	68	6	74	..	3	49
			8	100	..	93	..	93	2	6	82
				500	..	359	40	399	10	22	294
		1	Staff	7	..	12	1	13	2	..	11
	Total ..	..	..	507	..	371	41	412	12	22	305
				COUNTY SUMMARY.							
	Artillery ..	..	..	320	..	186	41	227	5	12	154
	Rifle	..	..	500	..	359	40	399	10	22	294
				820	..	545	81	626	15	34	448
			Staff	7	..	12	1	13	2	..	11
	Total ..	..	..	827	..	557	82	639	17	34	459
Kinross ..	Rifle	..	1	100	..	74	2	76	3	1	71

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Kirkcudbright .	Artillery ..	..	1	80	..	51	10	61	1	4	45
	Rifle	..	1	100	..	89	1	90	3	4	65
			2	100	..	83	3	86	2	6	59
			3	100	..	61	5	66	3	6	48
			5	200	..	183	5	188	2	11	146
			6	100	..	75	9	84	2	5	62
				600	..	491	23	514	12	32	380
(Galloway ..	Admin. Bn.). .	1	Staff	10	..	10	..	10	3	..	9
	Total ..	..	..	610	..	501	23	524	15	32	389
	COUNTY SUMMARY.										
	Artillery ..	..	..	80	..	51	10	61	1	4	45
	Rifle	..	..	600	..	491	23	514	12	32	380
				680	..	542	33	575	13	36	425
			Staff	10	..	10	..	10	3	..	9
	Total ..	..	..	690	..	552	33	585	16	36	434
Lanark.. ..	Artillery ..	..	1	1,360	..	1,253	2	1,255	46	69	1,047
	Engineer ..	..	1	600	..	437	6	443	14	24	430
	Rifle	..	1	1,600	..	1,113	1	1,114	39	61	1,016
			3	900	..	733	28	761	25	47	585
			4	900	..	621	6	627	25	48	583
			16	1,000	..	835	31	866	27	44	693
			19	1,200	..	632	60	692	19	50	565
			25	800	..	707	4	711	22	41	487
			29	1,000	..	593	5	598	28	52	551
			31	1,000	..	906	7	913	25	55	943
			37	100	20	91	14	105	2	7	88
			55	100	..	56	8	64	1	5	44
	Carried forward ..			8,600	20	6,287	164	6,451	213	410	5,555

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Brought forward	..	..	8,600	20	6,287	164	6,451	213	410	5,555
Lanark—*cont.*	Rifle		62	100	..	76	3	79	2	5	74
		..	73	100	..	62	6	68	2	5	51
			94	100	..	59	4	63	2	3	59
			105	1,200	..	854	28	882	29	62	691
			107	100	..	89	..	89	2	6	85
				10,200	20	7,427	205	7,632	250	491	6,515
		3	Staff	5	..	9	2	11	3	..	9
	Total ..	..	..	10,205	20	7,436	207	7,643	253	491	6,524
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,360	..	1,253	2	1,255	46	69	1,047
	Engineer ..	..	..	600	..	437	6	443	14	24	430
	Rifle	..	..	10,200	20	7,427	205	7,632	250	491	6,515
				12,160	20	9,117	213	9,330	310	584	7,992
			Staff	5	..	9	2	11	3	..	9
	Total ..	..	..	12,165	20	9,126	215	9,341	313	584	8,001
Lancashire ..	Artillery		1	640	..	597	12	609	8	32	492
			4	640	..	494	23	517	5	32	401
			5	480	..	353	16	369	6	29	239
			8	960	..	882	35	917	15	48	648
			10	80	..	73	..	73	1	5	70
			12	960	50	893	14	907	13	53	873
			15	720	..	478	12	490	12	39	449
			17	240	..	207	11	218	3	13	155
			18	240	..	180	10	190	6	14	169
			19	720	..	685	17	702	16	40	577
			21	400	..	344	..	344	1	24	318
			23	240	..	146	8	154	2	14	127
			24	160	..	160	1	161	3	9	128
			25	80	..	79	1	80	2	5	76
			26	160	..	138	20	158	1	9	114
	Carried forward ..		..	6,720	50	5,709	180	5,889	94	366	4,836

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Bght. forward	..	..	6,720	50	5,709	180	5,889	94	366	4,836
Lancashire—*cont.*	Artillery ..	2	Staff	12	..	4	..	4	..	..	3
		3	,,	12	..	3	..	3	..	..	2
		4	,,	10	..	5	..	5	2	..	5
	Total ..	..	..	6,754	50	5,721	180	5,901	96	366	4,846
	Engineer ..	..	1	800	..	497	21	518	13	32	464
			2	600	..	525	41	566	7	23	477
	Total ..	..	..	1,400	..	1,022	62	1,084	20	55	941
	Rifle	..	1	1,000	..	942	14	956	28	44	785
			2	800	..	800	..	800	16	44	563
			4	100	30	106	9	115	2	5	83
			5	1,000	..	866	17	883	33	52	769
			6	1,200	..	1,101	13	1,114	25	43	1,009
			7	300	..	268	9	277	6	18	206
			8	600	..	614	1	615	15	32	472
			9	600	..	394	23	417	7	26	382
			10	900	..	674	57	731	13	46	550
			11	800	..	761	21	782	6	41	644
			13	200	..	152	16	168	2	10	141
			15	600	..	599	..	599	20	34	455
			17	400	..	400	..	400	6	20	383
			21	300	..	274	15	289	8	6	226
			23	600	..	403	10	413	12	24	362
			24	600	..	439	..	439	13	24	388
			27	1,000	..	701	17	718	20	50	623
			29	100	..	62	..	62	2	4	57
			31	600	..	364	5	369	14	24	356
			33	1,200	..	1,199	1	1,200	16	52	1,105
			40	1,200	..	1,200	..	1,200	20	55	1,111
			46	200	..	161	3	164	6	9	125
			47	900	..	701	20	721	22	31	585
			48	100	60	133	4	137	2	3	106
			49	100	..	69	3	72	1	2	59
			54	200	..	153	2	155	3	9	148
			55	100	..	100	..	100	1	5	79
			56	800	..	736	13	749	11	30	664
	Carried forward		..	16,500	90	14,372	273	14,645	330	743	12,436

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
	Bght. forward	..	..	16,500	90	14,372	273	14,645	330	743	2,436
Lancashire—*cont.*	Rifle	..	57	100	..	100	..	100	3	5	60
			59	100	..	68	1	69	1	5	51
			60	100	..	95	..	95	2	6	85
			62	200	..	135	..	135	6	11	128
			64	600	..	546	16	562	13	33	483
			67	100	..	70	8	78	1	4	66
			76	100	..	91	1	92	1	6	84
			80	800	..	419	61	480	11	21	397
			84	100	..	100	1	101	1	1	69
			88	100	30	130	..	130	3	5	102
			91	100	..	74	..	74	3	5	60
				18,900	120	16,200	361	16,561	375	845	14,012
		3	Staff	12	..	11	1	12	2	..	10
		4	„	10	..	14	1	15	1	..	8
		6	„	10	..	5	..	5	..	..	5
		7	„	10	..	5	..	5	..	..	5
		8	„	10	..	5	..	5	..	..	4
		9	„	7	..	4	..	4	..	..	3
	Total ..	..	..	18,959	120	16,244	363	16,607	378	845	14,047
	COUNTY SUMMARY.										
	Artillery ..	..	..	6,720	50	5,709	180	5,889	94	366	4,836
	Engineer ..	..	..	1,400	..	1,022	62	1,084	20	55	941
	Rifle	..	..	18,900	120	16,200	361	16,561	375	845	14,012
				27,020	170	22,931	603	23,534	489	1,266	19,789
			Staff	93	..	56	2	58	5	..	45
	Total ..	..	..	27,113	170	22,987	605	23,592	494	1,266	19,834
Leicester ..	Rifle	..	1	100	..	93	4	97	1	2	78
			2	100	..	53	11	64	..	4	52
			3	100	..	60	7	67	2	3	58
			4	200	..	166	7	173	3	7	160
			5	100	..	84	4	88	2	4	81
			6	100	..	55	21	76	..	..	41
	Carried forward ..	..	..	700	..	511	54	565	8	20	470

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Brought forward	..	..	700	..	511	54	565	8	20	470
Leicester—*cont.*	Rifle	..	8	100	..	67	7	74	..	4	64
			9	100	..	87	5	92	2	4	76
			10	100	..	45	17	62	2	1	51
				1,000	..	710	83	793	12	29	661
		1	Staff	10	..	11	1	12	3	..	11
	Total ..	..	..	1,010	..	721	84	805	15	29	672
Lincoln ..	Light Horse ..	..	1	60	9	39	6	45	2	3	41
	Artillery ..	..	1	160	..	100	3	103	2	8	78
			2	240	..	170	5	175	6	15	158
			3	129	..	86	2	88	3	4	74
				529	..	356	10	366	11	27	310
		1	Staff	7	..	5	...	5	2	..	5
	Total ..	..	..	536	..	361	10	371	13	27	315
	Rifle	..	1	300	..	189	12	201	8	14	150
			2	100	..	92	2	94	3	4	82
			3	200	..	109	8	117	3	6	104
			4	100	..	79	3	82	3	5	67
			5	100	..	71	5	76	3	5	68
			6	100	10	106	5	111	2	4	91
			7	100	..	100	..	100	3	5	84
			8	100	..	70	1	71	3	3	72
			9	100	..	69	2	71	3	4	69
			11	100	..	70	3	73	3	5	66
			12	100	..	77	3	80	3	2	76
			13	100	..	65	4	69	2	4	59
			17	100	..	64	6	70	2	1	59
			18	100	..	39	17	56	2	3	37
			19	100	..	66	2	68	2	5	64
			20	100	..	60	7	67	1	5	57
				1,900	10	1,326	80	1,406	46	75	1,205
		1	Staff	10	..	16	..	16	3	..	16
		2	„	10	..	12	..	12	2	..	11
	Total ..	..	..	1,920	10	1,354	80	1,434	51	75	1,232

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Effients.	Non-Effients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
				COUNTY SUMMARY.							
Lincoln—*cont.*	Light Horse ..	..	..	60	9	39	6	45	2	3	41
	Artillery ..	..	..	529	..	356	10	366	11	27	310
	Rifle	..	..	1,900	10	1,326	80	1,406	46	75	1,205
				2,489	19	1,721	96	1,817	59	105	1,556
			Staff	27	..	33	..	33	7	..	32
	Total ..	..	..	2,516	19	1,754	96	1,850	66	105	1,588
Linlithgow ..	Rifle	..	1	100	30	100	..	100	2	6	83
			2	159	60	103	3	106	4	6	86
			3	100	..	100	..	100	2	6	99
			4	100	60	113	1	114	3	7	100
			5	100	..	100	..	100	2	6	83
				559	150	516	4	520	13	31	451
		1	Staff	5	..	9	..	9	3	..	9
	Total ..	..	..	564	150	525	4	529	16	31	460
London ..	Artillery ..	..	1	400	..	178	63	241	7	14	162
	Engineer ..	..	1	600	..	349	58	407	7	28	387
	Rifle	..	1	1,200	..	594	138	732	31	44	583
			2	1,000	..	686	68	754	18	50	501
			3	1,200	..	897	25	922	19	61	726
	Total ..	..	..	3,400	..	2,177	231	2,408	68	155	1,810
				COUNTY SUMMARY.							
	Artillery ..	..	..	400	..	178	63	241	7	14	162
	Engineer ..	..	..	600	..	349	58	407	7	28	387
	Rifle	..	..	3,400	..	2,177	231	2,408	68	155	1,810
	Total ..	..	..	4,400	..	2,704	352	3,056	82	197	2,359

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Middlesex ..	Artillery ..	..	2	640	..	603	23	626	20	34	489
			3	960	..	895	42	937	25	50	787
	Total ..	..	....	1,600	..	1,498	65	1,563	45	84	1,276
	Engineer ..	..	1	800	..	424	24	448	13	31	394
	Rifle	..	1	400	..	152	90	242	16	11	166
			2	1,400	..	686	172	858	36	65	648
			3	159	..	87	16	103	3	5	75
			4	700	..	617	47	664	12	30	504
			9	600	..	344	51	395	14	21	297
			11	600	..	500	14	514	17	29	468
			12	100	..	71	4	75	2	4	68
			13	100	..	58	34	92	3	4	65
			14	100	..	97	2	99	1	5	84
			15	800	..	436	85	521	10	28	402
			16	400	..	245	2	247	5	17	226
			18	300	..	173	26	199	7	15	170
			19	1,000	..	747	53	800	23	51	710
			20	1,000	..	592	35	627	20	39	548
			21	800	..	375	86	461	22	30	373
			22	1,200	..	697	52	749	32	46	688
			23	800	..	239	215	454	17	21	306
			24	100	..	70	9	79	1	4	60
			26	1,300	..	722	95	817	24	46	690
			28	1,200	..	863	60	923	23	53	805
			29	800	..	500	21	521	16	37	470
			30	100	..	79	..	79	2	3	69
			33	100	..	96	3	99	..	5	77
			36	900	..	807	..	807	27	47	719
			37	800	60	782	..	782	25	46	651
			38	600	..	383	71	454	14	25	367
			39	800	..	608	33	641	11	40	555
			40	800	..	437	103	540	11	28	391
			41	200	..	117	13	130	3	8	112
			43	100	..	55	7	62	3	4	49
			44	100	..	42	23	65	2	5	46
			46	600	..	490	19	509	9	26	436
			49	1,000	..	633	5	638	17	50	545
			50	100	..	68	3	71	1	..	65
				20,059	60	12,868	1,449	14,317	438	848	11,905
		2	Staff	12	..	9	..	9	1	..	9
		7	„	10	..	11	..	11	3	..	11
	Total ..	..	..	20,081	60	12,888	1,449	14,337	442	848	11,925

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
				COUNTY SUMMARY.							
Middlesex--*cont.*	Artillery ..	..	..	1,600	..	1,498	65	1,563	45	84	1,276
	Engineer ..	..	..	800	..	424	24	448	13	31	394
	Rifle	..	..	20,059	60	12,868	1,449	14,317	438	848	11,905
				22,459	60	14,790	1,538	16,328	496	963	13,575
			Staff	22	..	20	..	20	4	..	20
	Total ..	..	..	22,481	60	14,810	1,538	16,348	500	963	13,595
Midlothian ..	Artillery ..	..	1	640	50	458	88	546	21	31	436
			1	1,100	..	875	24	899	32	55	653
	Rifle	..	2	400	..	347	37	384	9	21	314
			3	200	..	133	3	136	5	10	110
			5	100	60	111	5	116	3	7	107
			6	100	..	94	7	101	4	5	86
				1,900	60	1,560	76	1,636	53	98	1,270
		1	Staff	10	..	13	..	13	3	..	8
	Total ..	..	..	1,910	60	1,573	76		56	98	1,278
				COUNTY SUMMARY.							
	Artillery ..	..	..	640	50	458	88	546	21	31	436
	Rifle	..	..	1,900	60	1,560	76	1,636	53	98	1,270
				2,540	110	2,018	164	2,182	74	129	1,706
			Staff	10	..	13	..	13	3	..	8
	Total ..	..	..	2,550	110	2,031	164	2,195	77	129	1,714
Monmouthshire	Artillery ..	..	1	400	..	260	78	338	3	25	212
		1	Staff	12	..	6	..	6	1	..	5
				412	..	266	78	344	4	25	217
	Rifle	..	1	100	60	87	3	90	2	4	72
			2	600	..	540	11	551	6	32	387
			3	400	..	297	17	314	8	15	230
			4	100	..	86	..	86	3	5	76
			5	159	..	75	..	75	2	5	73
			6	100	..	68	2	70	2	5	57
			7	300	..	195	9	204	7	10	164
			8	100	..	78	2	80	1	6	70
			9	100	..	79	2	81	2	6	60
	Carried forward ..	..	..	1,959	60	1,505	46	1,551	33	88	1,189

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct 1876.
Monmouthshire *cont.*	Brought forward	..	..	1,959	60	1,505	46	1,551	33	88	1,189
		1	Staff	7	..	5	1	6	1	..	5
		2	„	10	..	10	..	10	3	..	9
	Total ..	..	..	1,976	60	1,520	47	1,567	37	88	1,203
	COUNTY SUMMARY.										
	Artillery ..	..	..	400	..	260	78	338	3	25	212
	Rifle	..	..	1,959	60	1,505	46	1,551	33	88	1,189
				2,359	60	1,765	124	1,889	36	113	1,401
			Staff	29	..	21	1	22	5	..	19
	Total ..	..	..	2,388	60	1,786	125	1,911	41	113	1,420
Nairn	Artillery ..	..	1	160	..	121	..	121	5	10	104
Newcastle-on-Tyne	Artillery ..	..	1	640	..	552	15	567	20	36	482
	Engineer ..	..	1	400	..	349	51	400	4	20	285
	Rifle	..	1	800	..	504	16	520	14	31	443
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	..	552	15	567	20	36	482
	Engineer ..	..	..	400	..	349	51	400	4	20	285
	Rifle	..	..	800	..	504	16	520	14	31	443
	Total ..	..	..	1,840	..	1,405	82	1,487	38	87	1,210

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Norfolk ..	Artillery ..	..	1	160	..	124	5	129	2	9	105
		..	2	160	..	142	1	143	5	10	132
				320	..	266	6	272	7	19	237
		1	Staff	10	..	6	..	6	2	..	4
	Total ..	..	..	330	..	272	6	278	9	19	241
	Rifle	..	1	600	..	498	7	505	16	31	422
		..	2	500	..	432	13	445	11	26	369
		..	3	1,059	..	585	24	609	32	48	509
		..	4	600	..	340	42	382	15	25	326
	Total ..	..	..	2,759	..	1,855	86	1,941	74	130	1,626
	COUNTY SUMMARY.										
	Artillery ..	..	..	320	..	266	6	272	7	19	237
	Ride	..	..	2,759	..	1,855	86	1,941	74	130	1,626
				3,079	..	2,121	92	2,213	81	149	1,863
			Staff	10	..	6	..	6	2	..	4
	Total ..	..	..	3,089	..	2,127	92	2,219	83	149	1,867
Northampton..	Engineer ..	..	1	100	..	77	2	79	3	5	61
	Rifle	..	1	100	..	68	4	72	1	5	66
			2	100	..	18	38	56	1	3	16
			3	500	..	342	5	347	4	25	311
			6	200	..	148	4	152	5	7	113
			7	100	..	97	3	100	3	5	95
			8	100	..	61	..	61	3	3	61
			9	100	..	96	..	96	1	5	86
				1,200	..	830	54	884	18	53	748
		1	Staff	12	..	11	1	12	2	..	11
	Total ..	..	..	1,212	..	841	55	896	20	53	759

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
				COUNTY SUMMARY.							
Northampton—*cont.*	Engineer ..	..	..	100	..	77	2	79	3	5	61
	Rifle	..	..	1,200	..	830	54	884	18	53	748
				1,300	..	907	56	963	21	58	809
			Staff	12		11	1	12	2	..	11
	Total ..	..	..	1,312	..	918	57	975	23	58	820
Northumberland	Artillery ..	..	1	240	..	161	3	164	9	13	149
			2	640	..	307	94	401	10	20	222
			3	480	..	363	22	385	12	24	321
				1,360	..	831	119	950	31	57	692
		1	Staff	10	..	1	..	1	..	..	1
	Total ..	..	..	1,370	..	832	119	951	31	57	693
	Rifle	..	2	159	..	136	5	141	3	9	110
			3	100	..	71	7	78	2	6	73
			4	100	..	47	13	60	1	5	35
			5	100	..	54	16	70	1	4	40
			6	100	..	57	5	62	2	5	55
			7	100	..	88	10	98	2	6	80
			8	600	..	209	149	358	8	25	240
			10	100	..	49	11	60	1	3	44
			11	100	..	66	6	72	1	5	65
				1,459	..	777	222	999	21	68	742
		1	Staff	10	..	14	2	16	2	..	12
	Total ..	..	..	1,469	..	791	224	1,015	23	68	754
				COUNTY SUMMARY.							
	Artillery ..	..	..	1,360	..	831	119	950	31	57	692
	Rifle	..	..	1,459	..	777	222	999	21	68	742
				2,819	..	1,608	341	1,949	52	125	1,434
			Staff	20	..	15	2	17	2	..	13
	Total ..	..	..	2,839	..	1,623	343	1,966	54	125	1,447

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Nottingham ..	Rifle	..	1	1,000	100	998	2	1,000	16	50	755
			2	100	..	64	3	67	1	5	65
			3	200	..	138	27	165	2	8	137
			4	100	..	89	..	89	..	2	73
			5	100	..	56	7	63	1	4	57
			6	100	..	56	5	61	1	3	53
			7	100	..	69	2	71	1	5	67
			8	100	..	68	5	73	1	4	55
				1,800	100	1,538	51	1,589	23	81	1,262
		1	Staff	10	..	12	1	13	2	..	11
	Total ..	..	..	1,810	100	1,550	52	1,602	25	81	1,273
Orkney ..	Artillery ..	..	1	80	..	39	17	56	..	3	42
			2	80	..	49	8	57	1	3	42
			3	80	..	56	12	68	2	5	51
			4	80	..	50	9	59	1	5	44
			5	80	..	52	2	54	3	..	41
			6	80	..	49	5	54	2	..	43
			7	49	..	15	18	33	..	..	22
			8	80	..	42	11	53	1	2	40
			9	80	..	41	9	50	1	..	32
				689	..	393	91	484	11	18	357
		1	Staff	7	..	3	..	3	..	5	3
	Total ..	..	..	696	..	396	91	487	11	18	360
	Rifle	..	1	100	..	72	5	77	3	3	51
					COUNTY SUMMARY.						
	Artillery ..	..	..	689	..	393	91	484	11	18	357
	Rifle	..	..	100	..	72	5	77	3	3	51
				789	..	465	96	561	14	21	408
			Staff	7	..	3	..	3	..	..	3
	Total ..	..	..	796	..	468	96	564	14	21	411
Oxfordshire ..	Rifle	..	1	600	..	130	102	232	11	10	151
			2	600	..	388	28	416	13	28	296
	Total ..	..	..	1,200	..	518	130	648	24	38	447

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Peebles	Rifle		1	200	..	109	4	113	2	7	104
			3	100	60	106	4	110	2	6	87
	Total			300	60	215	8	223	4	13	191
Pembroke	Artillery		2	160	..	61	33	94	1	6	77
	Rifle		1	100	..	100	1	101	2	5	96
			3	100	..	71	4	75	2	5	66
				200	..	171	5	176	4	10	162
		1	Staff	5	..	11	2	13	1	..	11
	Total			205	..	182	7	189	5	10	173
	COUNTY SUMMARY.										
	Artillery			160	..	61	33	94	1	6	77
	Rifle			200	..	171	5	176	4	10	162
				360	..	232	38	270	5	16	239
			Staff	5	..	11	2	13	1	..	11
	Total			365	..	243	40	283	6	16	250
Perthshire	Rifle		1	200	..	115	11	126	3	8	114
			3	100	..	63	5	68	3	4	52
			4	100	..	62	8	70	2	4	60
			5	100	..	97	2	99	3	5	89
			6	100	..	72	..	72	3	5	70
			7	100	..	70	3	73	2	4	61
			8	100	..	73	4	77	3	5	73
			9	100	..	84	1	85	2	5	70
			11	100	..	73	..	73	2	6	72
			13	100	..	51	9	60	1	4	48
			14	100	..	70	4	74	2	5	61
			15	100	..	66	2	68	2	5	65
			18	100	..	84	10	94	1	6	86
			19	100	..	47	6	53	1	2	46
			20	100	..	70	..	70	2	5	64
				1,600	..	1,097	65	1,162	32	73	1,031
		1	Staff	10	..	10	1	11	4	..	10
		2	,,	10	..	11	2	13	2	..	10
	Total			1,620	..	1,118	68	1,186	38	73	1,051

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Radnor ..	Rifle	..	1	100	..	52	9	61	..	2	44
			2	100	..	33	28	61	..	2	27
	Total ..	..	..	200	..	85	37	122	..	4	71
Renfrewshire ..	Artillery ..	..	1	320	..	231	17	248	5	12	186
		1	Staff	10	..	4	..	4	1	..	4
	Total ..	..	..	330	..	235	17	252	6	12	190
	Rifle	..	1	400	50	419	1	420	13	20	353
			3	100	30	82	5	87	3	5	60
			4	100	..	91	4	95	2	5	60
			5	100	..	95	1	96	3	5	75
			6	100	30	94	4	98	3	4	77
			7	100	20	75	..	75	3	5	63
			8	100	..	66	..	66	3	2	58
			9	100	30	130	..	130	2	6	77
			10	200	..	167	3	170	5	10	138
			14	100	30	81	2	83	2	6	65
			15	100	..	85	2	87	3	5	60
			16	100	..	83	1	84	1	5	78
			17	100	..	..	66	66	..	..	63
			19	100	..	76	2	78	1	5	71
			20	100	30	95	..	95	3	5	65
			21	100	30	107	..	107	3	6	85
			22	100	..	83	1	84	1	6	62
			23	100	..	70	5	75	1	5	59
			24	100	30	84	2	86	3	6	66
			25	100	..	79	1	80	2	5	70
				2,400	280	2,062	100	2,162	57	116	1,705
		1	Staff	10	..	9	..	9	2	..	9
		2	„	10	..	11	1	12	4	..	8
		3	„	10	..	13	..	13	3	..	12
	Total ..	..	..	2,430	280	2,095	101	2,196	66	116	1,734

COUNTY SUMMARY.

Artillery ..	..	..	320	..	231	17	248	5	12	186
Rifle	..	..	2,400	280	2,062	100	2,162	57	116	1,705
			2,720	280	2,293	117	2,410	62	128	1,891
		Staff	40	..	37	1	38	10	..	33
Total ..	..	..	2,760	280	2,330	118	2,448	72	128	1,924

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Ross	Artillery ..	..	1	80	30	109	1	110	3	5	90
			2	80	..	60	3	63	2	..	46
	Total ..	..	..	160	30	169	4	173	5	5	136
	Rifle	..	1	100	..	96	3	99	2	7	68
			2	100	..	85	1	86	2	5	63
			3	100	..	92	..	92	3	6	76
			4	100	..	79	..	79	3	5	56
			5	100	..	82	7	89	1	4	70
			6	100	..	82	..	82	3	5	68
			7	100	..	75	..	75	2	4	64
			8	100	..	71	..	71	3	5	55
			9	100	..	63	4	67	1	3	56
				900	..	725	15	740	20	44	576
		1	Staff	10	..	14	..	14	4	..	11
	Total ..	..	..	910	..	739	15	754	24	44	587
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	30	169	4	173	5	5	136
	Rifle	..	..	900	..	725	15	740	20	44	576
				1,060	30	894	19	913	25	49	712
			Staff	10	..	14	..	14	4	..	11
	Total ..	..	..	1,070	30	908	19	927	29	49	723
Roxburgh ..	Mounted Rifle	..	1	60	..	50	8	58	3	4	50
	Rifle	..	1	100	30	74	2	76	3	5	72
			2	100	19	94	1	95	3	6	82
			3	100	..	74	1	75	3	6	68
			4	200	..	152	2	154	2	8	137
				500	49	394	6	400	11	25	359
		1	Staff	7	..	11	..	11	4	..	11
	Total ..	..	..	507	49	405	6	411	15	25	370
	COUNTY SUMMARY.										
	Mounted Rifle	..	..	60	..	50	8	58	3	4	50
	Rifle	..	..	500	49	394	6	400	11	25	359
				560	49	444	14	458	14	29	409
			Staff	7	..	11	..	11	4	..	11
	Total ..	..	..	567	49	455	14	469	18	29	420

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants	
Selkirk.. ..	Rifle	..	1	200	..	193	..	193	5	11	173
			2	100	..	75	1	76	3	6	67
	Total ..	..	..	300	..	268	1	269	8	17	240
Shropshire ..	Artillery ..	..	1	320	..	226	18	244	5	20	220
		1	Staff	10	..	2	..	2	..	..	2
	Total ..	..	..	330	..	228	18	246	5	20	222
	Rifle	..	1	100	..	65	4	69	1	5	52
			2	100	..	32	5	37	1	1	41
			3	100	..	86	14	100	2	5	78
			4	100	..	74	1	75	2	6	70
			5	100	..	56	5	61	3	5	48
			6	100	30	87	..	87	2	5	86
			7	100	..	88	9	97	..	4	70
			8	100	..	38	9	47	1	5	32
			10	100	..	86	2	88	2	4	84
			11	100	..	59	2	61	2	4	35
			12	100	..	44	7	51	2	5	39
			13	100	..	52	7	59	2	5	51
			14	100	..	76	..	76	2	4	66
			15	100	..	85	2	87	2	5	76
			17	100	30	99	..	99	1	6	82
			18	100	..	52	8	60	2	3	84
				1,600	60	1,079	75	1,154	27	72	994
		1	Staff	10	..	14	..	14	3	..	14
		2	„	10	..	12	..	12	..	..	10
	Total ..	..	..	1,620	60	1,105	75	1,180	30	72	1,018
	COUNTY SUMMARY.										
	Artillery ..	..	..	320	..	226	18	244	5	20	220
	Rifle	..	..	1,600	60	1,079	75	1,154	27	72	994
				1,920	60	1,305	93	1,398	32	92	1,214
			Staff	30	..	28	..	28	3	..	26
	Total ..	..	..	1,950	60	1,333	93	1,426	35	92	1,240
Somersetshire..	Artillery ..	..	1	80	..	66	2	68	2	5	63
	Engineer ..	..	1	200	60	178	22	200	4	10	154

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Somersetshire—*cont.*	Rifle	..	1	100	..	88	1	89	3	6	80
			2	100	..	94	..	94	2	6	88
			3	100	..	84	4	88	..	3	85
			4	100	..	37	27	64	1	1	47
			5	159	..	159	..	159	2	9	150
			6	100	..	49	11	60	2	2	45
			7	100	..	75	..	75	3	5	70
			8	100	..	62	..	62	3	3	58
			9	100	..	60	13	73	1	5	62
			10	100	..	50	10	60	1	4	42
			12	100	..	72	2	74	2	5	67
			13	200	..	84	40	124	1	7	86
			14	100	..	62	..	62	2	4	60
			15	100	..	63	14	77	2	1	55
			16	100	..	88	..	88	2	6	88
			17	100	..	89	..	89	2	6	82
			18	100	..	100	..	100	2	5	85
			19	100	..	66	3	69	2	4	50
			20	100	..	91	..	91	3	5	79
			21	100	..	40	19	59	2	2	43
			22	100	..	54	4	58	..	1	50
			23	100	..	49	13	62	1	4	41
			25	100	..	42	19	61	2	..	38
			26	200	..	136	7	143	2	10	120
			27	100	..	50	13	63	1	1	40
			28	100	..	..	35	35	..	..	..
				2,859	..	1,844	235	2,079	44	105	1,711
		1	Staff	7	..	10	..	10	1	..	9
		2	„	10	..	14	..	14	1	..	13
		3	„	10	..	14	1	15	3	..	14
	Total ..	..	..	2,886	..	1,882	236	2,118	49	105	1,747
	COUNTY SUMMARY.										
	Artillery ..	..	..	80	..	66	2	68	2	5	63
	Engineer ..	..	..	200	60	178	22	200	4	10	154
	Rifle	..	..	2,859	..	1,844	235	2,079	44	105	1,711
				3,139	60	2,088	259	2,347	50	120	1,928
			Staff	27	..	38	1	39	5	..	36
	Total ..	..	..	3,166	60	2,126	260	2,386	55	120	1,964
Staffordshire ..	Artillery ..	..	1	240	..	237	5	242	4	15	238
	Rifle	..	1	159	..	100	2	102	3	6	96
			2	100	..	97	3	100	3	6	91
			3	159	..	82	7	89	2	5	68
			4	200	..	184	1	185	6	12	144
			5	400	..	357	3	360	8	18	272
	Carried forward ..		..	1,018	..	820	16	836	22	47	671

County.	Arm.	No. of Administrative Regiment.	County No. of Corps	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct 1876.
	Brought forward	..	..	1,018	..	820	16	836	22	47	671
Staffordshire—*cont.*		..	6	100	..	83	3	86	1	5	77
			7	100	..	68	..	68	3	6	62
			8	100	..	72	..	72	3	5	69
			9	100	..	95	3	98	1	6	87
			10	100	30	101	..	101	3	6	100
			11	100	20	112	2	114	1	5	76
			12	100	30	120	..	120	2	5	69
			13	100	20	73	2	75	2	6	67
			14	100	..	75	..	75	3	5	57
			15	100	..	96	1	97	3	6	94
			16	200	..	154	11	165	2	10	155
			18	100	..	69	8	77	3	5	70
			19	100	..	100	..	100	3	6	86
			20	159	..	111	2	113	3	6	111
			21	100	..	60	..	60	2	4	53
			22	100	..	72	1	73	1	5	60
			23	159	..	116	3	119	2	8	76
			24	100	..	69	3	72	3	5	59
			25	200	..	129	6	135	3	9	126
			27	200	..	106	11	117	4	9	113
			28	100	..	74	6	80	2	5	68
			29	100	30	99	..	99	1	5	60
			30	100	..	97	1	98	3	6	78
			31	100	..	80	2	82	3	5	80
			32	200	..	115	3	118	3	6	81
			33	100	..	70	..	70	1	5	49
			34	100	..	75	..	75	3	5	59
			36	159	..	98	3	101	2	6	87
			39	100	..	76	1	77	2	5	58
			40	100	..	89	4	93	1	6	88
				4,595	130	3,574	92	3,666	91	223	3,046
		1	Staff	12	..	17	..	17	4	..	17
		2	„	7	..	10	..	10	2	..	10
		3	„	10	..	11	1	12	2	..	11
		4	„	10	..	13	..	13	4	..	13
		5	„	7	..	9	..	9	2	..	7
	Total ..	..	..	4,641	130	3,634	93	3,727	105	223	3,104

COUNTY SUMMARY.

Artillery ..	..	..	240	..	237	5	242	4	15	238
Rifle	..	..	4,595	130	3,574	92	3,666	91	223	3,046
			4,835	130	3,811	97	3,908	95	238	3,284
		Staff	46	..	60	1	61	14	..	58
Total ..	..	..	4,881	130	3,871	98	3,969	109	238	3,342

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Stirlingshire ..	Artillery ..	..	1	80	..	68	..	68	2	4	57
			2	80	50	80	..	80	2	5	74
	Total ..	..	..	160	50	148	..	148	4	9	131
	Rifle	..	1	100	..	81	..	81	3	5	72
			2	100	30	80	..	80	3	4	74
			3	100	30	104	..	104	3	5	100
			4	100	..	79	..	79	3	4	65
			5	100	..	46	..	46	1	4	44
			6	100	..	70	..	70	1	2	48
			7	100	..	82	..	82	3	4	69
			9	100	..	76	2	78	3	5	70
			11	100	..	86	1	87	3	5	80
			12	100	..	77	..	77	2	5	68
			13	100	..	84	4	88	3	5	66
			14	100	..	100	..	100	2	5	82
				1,200	60	965	7	972	30	53	838
		1	Staff	12	..	16	..	16	6	..	13
	Total ..	..	..	1,212	60	981	7	988	36	53	851
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	50	148	..	148	4	9	131
	Rifle	..	..	1,200	60	965	7	972	30	53	838
				1,360	110	1,113	7	1,120	34	62	969
			Staff	12	..	16	..	16	6	..	13
	Total ..	..	..	1,372	110	1,129	7	1,136	40	62	982
Suffolk	Artillery ..	..	1	80	..	72	2	74	1	5	67
			3	49	..	21	8	29	2	3	28
			4	80	50	72	4	76	..	5	71
	Total ..	..	..	209	50	165	14	179	3	13	166
	Rifle	..	1	300	..	299	..	299	5	16	250
			2	100	..	71	3	74	1	6	66
			3	100	..	79	9	88	3	5	73
			4	200	..	78	2	80	3	5	60
			6	100	60	65	11	76	1	4	64
			7	100	..	87	2	89	4	7	56
	Carried forward ..	..	..	900	60	679	27	706	17	43	569

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
	Bght. forward ..	..	..	900	60	679	27	706	17	43	569
Suffolk—*cont.*	Rifle	..	8	100	..	82	2	84	3	6	70
			9	100	..	69	..	69	2	6	63
			10	200	..	107	18	125	3	8	102
			11	100	..	62	8	70	3	4	59
			13	200	..	105	20	125	4	6	96
			14	100	..	82	..	82	2	5	67
			16	100	..	46	16	62	3	5	47
			17	200	..	109	13	122	2	10	98
			20	100	..	48	15	63	3	4	40
				2,100	60	1,389	119	1,508	42	97	1,211
		1	Staff	10	..	11	..	11	4	..	10
		2	„	7	..	10	1	11	3	..	8
		3	„	7	..	10	..	10	2	..	9
	Total ..	..	..	2,124	60	1,420	120	1,540	51	97	1,238
	COUNTY SUMMARY.										
	Artillery ..	..	..	209	50	165	14	179	3	13	166
	Rifle	..	..	2,100	60	1,389	119	1,508	42	97	1,211
				2,309	110	1,554	133	1,687	45	110	1,377
			Staff	24	..	31	1	32	9	..	27
	Total ..	..	..	2,333	110	1,585	134	1,719	54	110	1,404
Surrey	Artillery ..	..	1	640	..	529	111	640	11	15	385
	Rifle	..	1	600	..	306	53	359	18	29	246
			2	600	..	407	69	476	13	27	375
			4	259	..	163	2	165	4	8	152
			5	100	..	100	2	102	3	5	90
			6	100	..	67	4	71	1	4	65
			7	600	..	378	107	485	3	24	236
			8	100	..	46	11	57	1	1	47
			9	200	60	169	27	196	5	10	174
			10	200	60	197	19	216	5	13	157
			11	159	..	115	9	124	1	8	96
			12	400	..	260	2	262	9	21	222
			13	100	..	72	4	76	1	3	64
			14	100	..	..	..	..	..	..	..
			15	100	..	68	7	75	2	4	68
			17	100	..	55	..	55	1	3	43
			18	100	..	52	4	56	..	2	36
			19	600	..	519	32	551	11	34	470
	Carried forward			4,418	120	2,974	352	3,326	78	196	2,541

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
	Brought forward ..			4,418	120	2,974	352	3,326	78	196	2,541
Surrey—*cont.*	Rifle	..	23	600	..	298	63	361	9	27	247
			24	100	..	91	13	104	1	4	83
			25	100	..	56	3	59	2	4	38
			26	400	..	305	90	395	3	19	310
				5,618	120	3,724	521	4,245	93	250	3,219
		1	Staff	5	..	9	..	9	1	..	9
		2	„	10	..	8	..	8	1	..	7
		3	„	7	..	7	..	7	2	..	6
		4	„	10	..	4	..	4	..	..	4
	Total ..	..	..	5,650	120	3,752	521	4,273	97	250	3,245
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	..	529	111	640	11	15	385
	Rifle	..	..	5,618	120	3,724	521	4,245	93	250	3,219
				6,258	120	4,253	632	4,885	104	265	3,604
			Staff	32	..	28	..	28	4	..	26
	Total ..	..	..	6,290	120	4,281	632	4,913	108	265	3,630
Sussex	Artillery ..	..	1	640	..	466	36	502	6	34	434
			2	109	..	75	14	89	2	7	64
			3	160	..	93	16	109	2	4	75
			4	80	..	77	..	77	..	4	62
				989	..	711	66	777	13	49	635
		1	Staff	10	..	4	..	4	..	..	3
	Total ..	..	..	999	..	715	66	781	13	49	638
	Rifle	..	1	600	..	427	17	444	16	30	403
			2	200	..	85	15	100	1	5	79
			4	100	30	101	..	101	2	6	88
			5	100	..	80	..	80	3	6	77
			6	100	..	48	13	61	3	4	48
			7	100	..	60	..	60	3	4	59
			9	100	..	59	11	70	3	3	66
			10	100	..	47	15	62	2	5	44
			11	100	..	60	8	68	2	4	60
	Carried forward			1,500	30	967	79	1,046	35	67	924

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
	Brought forward	..	..	1,500	30	967	79	1,046	35	67	924
Sussex—*cont* ..	Rifle	..	12	100	..	50	16	66	2	2	49
			13	100	..	43	17	60	2	4	39
			18	100	..	27	21	48	..	..	29
				1,800	30	1,087	133	1,220	39	73	1,041
		1	Staff	12	..	16	3	19	3	..	16
	Total ..	..	..	1,812	30	1,103	136	1,239	42	73	1,057
	COUNTY SUMMARY.										
	Artillery ..	..	..	989	..	711	66	777	13	49	635
	Rifle	..	..	1,800	30	1,087	133	1,220	39	73	1,041
				2,789	30	1,798	199	1,997	52	122	1,676
			Staff	22	..	20	3	23	3	..	19
	Total ..	..	..	2,811	30	1,818	202	2,020	55	122	1,695
Sutherland ..	Artillery ..	..	1	80	..	58	3	61	2	..	46
			2	80	..	50	..	50	1	3	36
	Total ..	..	..	160	..	108	3	111	3	3	82
	Rifle	..	1	100	..	82	..	82	2	5	64
			2	100	..	103	10	113	2	4	82
			3	100	..	100	..	100	1	5	90
			4	100	..	98	2	100	1	4	83
			5	100	..	58	22	80	2	3	51
				500	..	441	34	475	8	21	370
		1	Staff	10	..	14	..	14	3	..	13
	Total ..	..	..	510	..	455	34	489	11	21	383
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	108	3	111	3	3	82
	Rifle	..	..	500	..	441	34	475	8	21	370
				660	..	549	37	586	11	24	452
			Staff	10	..	14	..	14	3	..	13
	Total ..	..	..	670	..	563	37	600	14	24	465

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Tower Hamlets	Engineer ..	..	2	600	..	380	18	398	7	32	319
	Rifle	..	1	1,200	..	637	82	719	13	55	618
			3	400	..	248	9	257	7	17	252
			7	400	..	298	2	300	4	20	248
			10	300	..	244	8	252	3	16	216
				2,300	..	1,427	101	1,528	27	108	1,334
		1	Staff	10	..	6	..	6	2	..	6
	Total ..	..	..	2,310	..	1,433	101	1,534	29	108	1,340
	COUNTY SUMMARY.										
	Engineer ..	..	..	600	..	380	18	398	7	32	319
	Rifle	..	..	2,300	..	1,427	101	1,528	27	108	1,334
				2,900	..	1,807	119	1,926	34	140	1,653
			Staff	10	..	6	..	6	2	..	6
	Total ..	..	..	2,910	..	1,813	119	1,932	36	140	1,659
Warwickshire ..	Rifle	..	1	1,200	..	960	27	987	24	61	732
			2	400	..	360	..	360	6	19	354
			3	200	..	132	..	132	3	9	128
			4	100	..	83	..	83	2	5	81
			5	100	..	64	..	64	1	5	70
			8	100	..	65	2	67	1	5	45
			9	100	10	101	..	101	1	6	104
			10	200	..	142	..	142	4	9	128
				2,400	10	1,907	29	1,936	42	119	1,642
		1	Staff	10	..	13	..	13	1	..	13
	Total ..	..	..	2,410	10	1,920	29	1,949	43	119	1,655
Westmoreland .	Rifle	..	1	100	..	75	2	77	3	4	60
			3	300	..	210	3	213	7	15	188
			4	100	..	72	2	74	3	5	64
			5	100	..	63	3	66	2	5	46
			6	100	..	61	1	62	..	4	52
				700	..	481	11	492	15	33	410
		1	Staff	7	..	7	..	7	1	..	9
	Total ..	..	..	707	..	488	11	499	16	33	419

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Sergeants.	
Wigtown ..	Artillery ..	..	1	80	10	53	4	57	..	4	51
			2	80	..	56	6	62	..	4	52
			3	80	..	42	16	58	3	4	50
	Total ..	..	..	240	10	151	26	177	3	12	153
	Rifle	..	2	100	..	76	6	82	1	3	65
			3	100	..	82	3	85	2	5	67
	Total ..	..	..	200	..	158	9	167	3	8	132
	COUNTY SUMMARY.										
	Artillery ..	..	..	240	10	151	26	177	3	12	153
	Rifle	..	..	200	..	158	9	167	3	8	132
	Total ..	..	..	440	10	309	35	344	6	20	285
Wiltshire ..	Rifle	..	1	200	..	162	6	168	5	9	147
			2	200	..	164	5	169	4	8	122
			3	100	..	53	8	61	2	5	54
			4	159	..	88	6	94	2	7	87
			5	100	..	92	..	92	2	5	85
			7	100	..	65	4	69	..	5	65
			9	100	..	56	5	61	2	4	48
			10	159	..	89	16	105	3	7	86
			11	200	..	151	3	154	4	10	149
			12	100	..	58	3	61	3	5	61
			13	100	..	58	6	64	2	3	60
			14	100	..	72	3	75	2	3	69
			15	100	..	46	14	60	2	4	47
			16	100	..	63	1	64	3	5	63
			17	100	..	62	10	72	1	5	58
			18	100	..	56	7	63	1	5	50
				2,018	..	1,335	97	1,432	38	90	1,251
		1	Staff	10	..	12	1	13	2	..	11
		2	„	12	..	15	2	17	3	..	16
	Total ..	..	..	2,040	..	1,362	100	1,462	43	90	1,278

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
Worcester ..	Artillery ..	..	1	320	..	319	..	319	8	17	318
	Rifle	..	1	100	..	67	..	67	2	6	54
			2	100	..	61	2	63	3	5	59
			3	100	..	67	1	68	1	6	60
			4	100	..	70	..	70	3	6	55
			5	100	..	61	..	61	1	5	49
			6	100	..	70	1	71	2	4	63
			7	100	..	99	..	99	3	5	79
			8	100	..	70	..	70	3	5	56
			9	159	..	121	..	121	2	9	100
			10	100	..	75	..	75	3	4	70
			11	100	..	57	8	65	3	3	48
			12	100	..	57	5	62	2	4	54
			13	100	..	100	1	101	2	5	93
			14	100	..	100	..	100	2	6	100
			16	100	..	58	..	58	2	4	53
			17	100	..	100	..	100	3	5	92
			18	100	..	61	3	64	3	2	61
			19	59	..	31	..	31	1	2	28
			20	100	..	86	..	86	3	6	66
			21	100	..	100	..	100	2	6	95
				2,018	..	1,511	21	1,532	46	98	1,335
		1	Staff	10	..	16	..	16	2	..	16
		2	„	10	..	14	..	14	2	..	14
	Total ..	..	..	2,038	..	1,541	21	1,562	50	98	1,365

COUNTY SUMMARY.

Artillery ..	..	..	320	..	319	..	319	8	17	318
Rifle ..	..	..	2,018	..	1,511	21	1,532	46	98	1,335
			2,338	..	1,830	21	1,851	54	115	1,653
		Staff	20	..	30	..	30	4	..	30
Total ..	..	..	2,358	..	1,860	21	1,881	58	115	1,683

York, East Riding.	Artillery ..	..	2	80	..	49	1	50	2	4	45
			4	640	..	641	..	641	19	37	576
			6	80	..	67	2	69	2	5	43
			7	80	..	44	2	46	2	5	42
				880	..	801	5	806	25	51	706
		1	Staff	10	..	7	3	10	3	..	8
	Total ..	..	..	890	..	808	8	816	28	51	714

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
York, East Riding—*cont.*	Rifle	..	1	600	..	514	7	521	20	33	490
			3	100	..	38	16	54	2	3	37
			5	100	..	90	2	92	3	5	83
			6	100	..	78	7	85	2	5	75
			8	100	..	61	3	64	3	2	59
			9	100	..	51	7	58	2	2	56
			10	100	..	..	..	..	..	..	..
			11	100	..	43	8	51	1	2	46
		..	..	1,300	..	875	50	925	33	52	846
		1	Staff	7	..	12	1	13	2	..	11
	Total ..	..	..	1,307	..	887	51	938	35	52	857
	COUNTY SUMMARY.										
	Artillery ..	..	..	880	..	801	5	806	25	51	706
	Rifle	..	..	1,300	..	875	50	925	33	52	846
				2,180	..	1,676	55	1,731	58	103	1,552
			Staff	17	..	19	4	23	5	..	19
	Total ..	..	..	2,197	..	1,695	59	1,754	63	103	1,571
York, North Riding	Artillery ..	..	1	640	..	268	34	302	12	22	271
			2	160	..	82	19	101	4	8	77
			3	160	..	89	16	105	3	8	94
	Total ..	..	..	960	..	439	69	508	19	38	442
	Rifle	..	1	100	..	70	1	71	3	4	70
			3	200	..	118	12	130	3	1	119
			4	100	..	69	..	69	2	5	70
			6	200	..	122	15	137	4	10	131
			8	100	..	52	7	59	..	3	39
			9	100	..	54	7	61	..	1	49
			10	100	..	62	2	64	..	..	62
			14	100	..	73	..	73	3	1	58
			15	300	..	142	6	148	3	4	111
			16	100	..	43	15	58	1	..	50
			18	100	..	41	21	62	1	1	41
			19	100	30	91	..	91	2	4	67
			20	100	..	64	5	69	..	1	41
				1,700	30	1,001	91	1,092	22	35	908
		1	Staff	12	..	13	1	14	2	..	13
		2	„	7	..	7	..	7	1	..	7
	Total ..	..	..	1,719	30	1,021	92	1,113	25	35	928

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
									Officers.	Serjeants.	
				COUNTY SUMMARY.							
York, North Riding—*cont.*	Artillery ..	..	..	960	..	439	69	508	19	38	442
	Rifle	..	..	1,700	30	1,001	91	1,092	22	35	908
				2,660	30	1,440	160	1,600	41	73	1,350
			Staff	19	..	20	1	21	3	..	20
	Total ..	..	..	2,679	30	1,460	161	1,621	44	73	1,370
York, West Riding	Artillery ..	..	1	640	..	425	14	439	12	33	344
			2	480	..	279	51	330	8	29	282
			3	160	..	142	12	154	3	9	109
			4	640	..	420	31	451	12	32	403
			7	160	..	..	58	58	..	..	..
			8	160	..	107	40	147	4	10	116
				2,240	..	1,373	206	1,579	39	113	1,254
		1	Staff	10	..	5	2	7	1	..	6
	Total ..	..	..	2,250	..	1,378	208	1,586	40	113	1,260
	Engineer ..	..	1	600	..	450	118	568	8	23	425
			2	1,000	..	886	88	974	23	38	791
	Total ..	..	..	1,600	..	1,336	206	1,542	31	61	1,216
	Rifle	..	1	500	..	351	39	390	11	20	334
			2	700	..	535	17	552	8	36	472
			3	800	..	564	9	573	17	33	495
			4	600	..	512	10	522	10	28	468
			5	400	..	226	30	256	5	14	226
			6	400	..	400	..	400	11	22	372
			7	1,000	..	962	1	963	16	51	848
			12	100	..	73	12	85	1	5	68
			15	100	..	78	8	86	1	5	79
			16	100	..	92	3	95	3	5	92
			17	100	..	68	3	71	2	4	69
			18	100	..	67	4	71	..	5	61
			19	100	..	91	6	97	1	5	75
			20	100	..	98	2	100	1	5	95
			21	100	..	99	..	99	2	6	86
			23	100	..	59	6	65	1	3	59
	Carried forward ..			5,300	..	4,275	150	4,425	90	247	3,899

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ending 31 Oct. 1876.
	Brought forward	..	..	5,300	..	4,275	150	4,425	90	247	3,899
York, West Riding—*cont.*	Rifle	..	27	200	..	130	29	159	3	9	123
			28	100	..	57	9	66	2	4	48
			29	300	..	188	8	196	7	10	183
			31	100	..	50	10	60	1	2	49
			32	100	..	68	5	73	1	5	68
			34	400	..	..	221	221	..	..	..
			35	300	..	168	39	207	3	10	163
			36	100	30	105	6	111	1	6	90
			37	159	..	135	1	136	3	9	102
			38	100	..	85	3	88	3	5	66
			40	100	..	90	2	92	2	5	46
			41	159	..	108	..	108	2	6	102
			42	100	..	55	7	62	1	4	40
			43	200	..	98	22	120	3	7	82
			45	100	..	92	2	94	1	5	68
				7,818	30	5,704	514	6,218	123	334	5,129
		1	Staff	10	..	10	2	12	2	..	10
		2	„	7	..	8	1	9	1	..	8
		3	„	10	..	11	1	12	2	..	12
		4	„	7	..	8	..	8	1	..	8
		5	„	10	..	9	..	9	1	..	7
	Total ..	..	..	7,862	30	5,750	518	6,268	130	334	5,174
	COUNTY SUMMARY.										
	Artillery ..	..	..	2,240	..	1,373	206	1,579	39	113	1,254
	Engineer ..	..	..	1,600	..	1,336	206	1,542	31	61	1,216
	Rifle	..	..	7,818	30	5,704	514	6,218	123	334	5,129
				11,658	30	8,413	926	9,339	193	508	7,599
			Staff	54	..	51	6	57	8	..	51
	Total ..	..	..	11,712	30	8,464	932	9,396	201	508	7,656
Engineer and Railway Volr. Staff Corps.	.. ..	..	..	110	..	29	..	29	..	..	..

COUNTY SUMMARY BY ARMS.

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Sergeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
Light Horse	Fife	240	..	122	32	154	5	..	158
	Forfar	60	..	78	..	78	2	4	78
	Hertford	120	..	88	..	88	5	10	73
	Huntingdon	240	..	117	68	185	8	4	120
	Lincolnshire	60	9	39	6	45	2	3	41
		720	9	444	106	550	22	21	470
	Staff of Administrative Regiments not included in Returns of any Corps	..	..	..	..	..	..	..	..
	Total	720	9	444	106	550	22	21	470
Artillery	Aberdeenshire	560	50	495	23	518	18	35	446
	Anglesey	80	50	64	1	65	1	5	51
	Argyll	849	..	537	94	631	19	40	498
	Ayrshire	578	10	452	32	484	11	33	407
	Banffshire	400	..	282	20	302	2	8	236
	Berwick-on-Tweed	160	..	108	4	112	4	7	91
	Berwickshire	160	..	101	6	107	3	..	84
	Bute	160	..	96	12	108	5	6	82
	Caithness-shire	560	..	388	26	414	9	15	307
	Carnarvon	80	..	36	14	50	..	4	35
	Cheshire	400	..	360	23	383	9	25	317
	Cinque Ports	1,218	30	748	110	858	21	68	678
	Cornwall	849	50	684	9	693	18	40	553
	Cromarty	80	..	58	..	58	2	1	42
	Cumberland	320	..	300	2	302	7	25	219
	Devonshire	1,440	50	1,163	65	1,228	32	78	1,017
	Dorsetshire	338	..	219	28	247	6	21	188
	Dumbarton	240	..	161	8	169	5	12	145
	Durham	1,760	50	1,354	18	1,372	34	92	1,142
	Edinburgh	720	..	478	48	526	10	33	401
	Elgin	160	..	116	6	122	1	6	84
	Essex	849	..	566	45	611	15	44	506
	Fife	898	60	750	35	785	18	33	706
	Forfar	960	..	716	46	762	22	51	565
	Glamorgan	1,200	100	1,242	37	1,279	24	68	893
	Gloucester	640	20	540	51	591	15	25	452
	Haddington	80	..	52	8	60	2	3	48
	Hants	880	50	745	13	758	18	49	497
	Inverness	480	..	360	12	372	12	29	373
	Carried forward	17,099	520	13,171	796	13,967	343	856	11,063

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
							Officers.	Sergeants.	
	Brought forward	17,099	520	13,171	796	13,967	343	856	11,063
Artillery—*cont.*	Kent	1,760	130	1,376	86	1,462	37	108	1,160
	Kincardine	320	..	186	41	227	5	12	154
	Kirkcudbright	80	..	51	10	61	1	4	45
	Lanarkshire	1,360	..	1,253	2	1,255	46	69	1,047
	Lancashire	6,720	50	5,709	180	5,889	94	366	4,836
	Lincoln	529	..	356	10	366	11	27	310
	London	400	..	178	63	241	7	14	162
	Middlesex	1,600	..	1,498	65	1,563	45	84	1,276
	Midlothian	640	50	458	88	546	21	31	436
	Monmouth	400	..	260	78	338	3	25	212
	Nairn	160	..	121	..	121	5	10	104
	Newcastle	640	..	552	15	567	20	36	482
	Norfolk	320	..	266	6	272	7	19	237
	Northumberland	1,360	..	831	119	950	31	57	692
	Orkney	689	..	393	91	484	11	18	357
	Pembroke	160	..	61	33	94	1	6	77
	Renfrew	320	..	231	17	248	5	12	186
	Ross-shire	160	30	169	4	173	5	5	136
	Shropshire	320	..	226	18	244	5	20	220
	Somersetshire	80	..	66	2	68	2	5	63
	Staffordshire	240	..	237	5	242	4	15	238
	Stirlingshire	160	50	148	..	148	4	9	131
	Suffolk	209	50	165	14	179	3	13	166
	Surrey	640	..	529	111	640	11	15	385
	Sussex	989	..	711	66	777	13	49	635
	Sutherland	160	..	108	3	111	3	3	82
	Wigtown	240	10	151	26	177	3	12	153
	Worcester	320	..	319	..	319	8	17	318
	York, East Riding	880	..	801	5	806	25	51	706
	„ North „	960	..	439	69	508	19	38	442
	„ West „	2,240	..	1,373	206	1,579	39	113	1,254
		42,155	890	32,393	2,229	34,622	837	2,119	27,765
	Staff of Administrative Regiments not included in Returns of any Corps.	304	..	161	8	169	28	..	143
	Total	42,459	890	32,554	2,237	34,791	865	2,119	27,908
Engineer	Cheshire	400	..	314	5	319	4	24	271
	Devon	200	..	140	27	167	3	9	130
	Durham	800	..	726	60	786	9	34	523
	Flint	100	50	115	15	130	3	5	115
	Gloucester	900	..	850	15	865	12	50	729
	Hampshire	100	30	130	..	130	1	8	131
	Lanark	600	..	437	6	443	14	24	430
	Lancashire	1,400	..	1,022	62	1,084	20	55	941
	London	600	..	349	58	407	7	28	387
	Carried forward	5,100	80	4,083	248	4,331	73	237	3,657

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct 1876.
							Officers.	Sergeants.	
	Brought forward	5,100	80	4,083	248	4,331	73	237	3,657
Engineer—*cont.*	Middlesex	800	..	424	24	448	13	31	394
	Newcastle	400	..	349	51	400	4	20	285
	Northampton ..	100	..	77	2	79	3	5	61
	Somerset	200	60	178	22	200	4	10	154
	Tower Hamlets ..	600	..	380	18	398	7	32	319
	York, West Riding	1,600	..	1,336	206	1,542	31	61	1,216
	Engineer and Railway Staff Volr. Corps	110	..	29	..	29	..	..	..
		8,910	140	6,856	571	7,427	135	396	6,086
	Staff of Administrative Regiments not included in Returns of any Corps	22	..	7	..	7	1	..	7
	Total ..	8,932	140	6,863	571	7,434	136	396	6,093
Mounted Rifle	Devon	60	..	..	46	46	..	..	..
	Dumfries	60	..	36	7	43	2	4	36
	Hampshire ..	60	..	20	12	32	3	2	19
	Roxburgh	60	..	50	8	58	3	4	50
		240	..	106	73	179	8	10	105
	Staff of Administrative Regiments not included in Returns of any Corps.	..	..	..	..	..	..	..	..
	Total ..	240	..	106	73	179	8	10	105
Rifle ..	Aberdeen	3,900	30	2,857	52	2,909	105	153	2,291
	Argyll	800	30	624	17	641	19	37	536
	Ayrshire	1,600	..	1,220	37	1,257	41	80	1,034
	Banff	659	..	553	10	563	11	20	422
	Bedford	759	30	521	2	523	14	33	416
	Berkshire	1,300	..	1,060	7	1,067	30	59	969
	Berwick-on-Tweed	100	..	70	3	73	3	4	46
	Berwickshire ..	700	..	500	37	537	17	42	462
	Brecknock	659	..	476	15	491	7	16	364
	Buckingham ..	600	..	514	2	516	11	44	443
	Bute	100	30	67	2	69	3	3	56
	Caithness	459	..	355	3	358	7	16	249
	Cambridge ..	1,400	..	652	226	878	34	52	572
	Cardigan	100	..	72	5	77	3	4	59
	Carmarthen ..	500	..	319	71	390	8	19	278
	Carnarvon	400	100	192	28	220	5	9	189
	Cheshire	4,577	90	3,634	91	3,725	91	202	3,187
	Cinque Ports ..	600	..	280	26	306	7	25	260
	Clackmannan ..	500	..	444	6	450	16	18	396
	Cornwall	2,000	315	1,819	37	1,856	48	89	1,466
	Carried forward	21,713	625	16,229	677	16,906	480	925	13,695

Arm.	County.	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
							Officers.	Serjeants.	
	Brought forward	21,713	625	16,229	677	16,906	480	925	13,695
Rifle—*cont.*	Cumberland ..	1,300	..	959	41	1,000	29	57	856
	Denbighshire ..	777	..	643	41	684	18	40	544
	Derby	2,459	..	2,039	50	2,089	48	87	1,814
	Devonshire ..	4,177	..	2,620	173	2,793	63	163	2,336
	Dorsetshire ..	1,218	..	812	57	869	20	50	674
	Dumbarton ..	1,318	120	999	36	1,035	32	64	899
	Dumfries	1,000	..	737	31	768	23	47	652
	Durham	3,559	..	2,296	190	2,486	48	146	1,912
	Edinburgh ..	3,000	60	2,433	95	2,528	86	140	2,022
	Elgin	1,059	..	814	38	852	23	37	659
	Essex	3,300	..	2,281	162	2,443	58	136	1,693
	Fife	1,200	30	849	58	907	22	49	766
	Flintshire	600	40	542	25	567	8	25	471
	Forfar	2,800	..	1,740	121	1,861	52	119	1,494
	Glamorgan ..	3,159	..	2,527	79	2,606	61	144	2,162
	Gloucester ..	2,200	60	1,259	182	1,441	32	77	1,195
	Haddington ..	559	30	345	27	372	12	14	296
	Hampshire ..	3,000	..	1,874	177	2,051	47	139	1,610
	Haverfordwest ..	300	..	230	29	259	5	15	224
	Hereford	818	..	582	38	620	9	40	446
	Herts	1,100	..	676	105	781	21	36	618
	Huntingdon ..	200	..	102	19	121	4	2	101
	Inverness	1,000	..	895	46	941	17	43	762
	Isle of Man ..	100	..	77	4	81	2	3	63
	Isle of Wight ..	700	30	540	30	570	9	35	457
	Kent	4,459	120	2,987	193	3,180	86	217	2,689
	Kincardine ..	500	..	359	40	399	10	22	294
	Kinross	100	..	74	2	76	3	1	71
	Kirkcudbright ..	600	..	491	23	514	12	32	380
	Lanark	10,200	20	7,427	205	7,632	250	491	6,515
	Lancashire ..	18,900	120	16,200	361	16,561	375	845	14,012
	Leicester	1,000	..	710	83	793	12	29	661
	Lincoln	1,900	10	1,326	80	1,406	46	75	1,205
	Linlithgow ..	559	150	516	4	520	13	31	451
	London	3,400	..	2,177	231	2,408	68	155	1,810
	Middlesex	20,059	60	12,868	1,449	14,317	438	848	11,905
	Midlothian ..	1,900	60	1,560	76	1,636	53	98	1,270
	Monmouth ..	1,959	60	1,505	46	1,551	33	88	1,189
	Newcastle	800	..	504	16	520	14	31	443
	Norfolk	2,759	..	1,855	86	1,941	74	130	1,626
	Northampton ..	1,200	..	830	54	884	18	53	748
	Northumberland ..	1,459	..	777	222	999	21	68	742
	Nottingham ..	1,800	100	1,538	51	1,589	23	81	1,262
	Orkney	100	..	72	5	77	3	3	51
	Oxford	1,200	..	518	130	648	24	38	447
	Peebles	300	60	215	8	223	4	13	191
	Pembroke	200	..	171	5	176	4	10	162
	Perthshire	1,600	..	1,097	65	1,162	32	73	1,031
	Radnor	200	..	85	37	122	..	4	71
	Renfrew	2,400	280	2,062	100	2,162	57	116	1,705
	Ross	900	..	725	15	740	20	44	576
	Carried forward	143,070	2,035	103,749	6,118	109,867	2,922	6,229	89,928

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
							Officers.	Sergeants.	
	Brought forward	143,070	2,035	103,749	6,118	109,867	2,922	6,229	89,928
Rifle—*cont.*	Roxburgh	500	49	394	6	400	11	25	359
	Selkirk	300	..	268	1	269	8	17	240
	Shropshire ..	1,600	60	1,079	75	1,154	27	72	994
	Somerset	2,859	..	1,844	235	2,079	44	105	1,711
	Stafford	4,595	130	3,574	92	3,666	91	223	3,046
	Stirling	1,200	60	965	7	972	30	53	838
	Suffolk	2,100	60	1,389	119	1,508	42	97	1,211
	Surrey	5,618	120	3,724	521	4,245	93	250	3,219
	Sussex	1,800	30	1,087	133	1,220	39	73	1,041
	Sutherland ..	500	..	441	34	475	8	21	370
	Tower Hamlets ..	2,300	..	1,427	101	1,528	27	108	1,334
	Warwick	2,400	10	1,907	29	1,936	42	119	1,642
	Westmoreland ..	700	..	481	11	492	15	33	410
	Wigtown	200	..	158	9	167	3	8	132
	Wiltshire	2,018	..	1,335	97	1,432	38	90	1,251
	Worcester	2,018	..	1,511	21	1,532	46	98	1,335
	York, East Riding	1,300	..	875	50	925	33	52	846
	„ North Riding	1,700	30	1,001	91	1,092	22	35	908
	„ West Riding	7,818	30	5,704	514	6,218	123	334	5,129
		184,596	2,614	132,913	8,264	141,177	3,664	8,042	115,944
	Staff of Administrative Regiments not included in Returns of any Corps.	1,112	..	1,304	66	1,370	242	..	1,233
	Total..	185,708	2,614	134,217	8,330	142,547	3,906	8,042	117,177

GRAND SUMMARY.

Arm.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.			No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.
						Officers.	Serjeants.	Total.	
Light Horse	720	9	444	106	550	22	21	43	470
Artillery	42,155	890	32,393	2,229	34,622	837	2,119	2,956	27,765
Engineer	8,910	140	6,856	571	7,427	135	396	531	6,086
Mounted Rifle	240	..	106	73	179	8	10	18	105
Rifle	184,596	2,614	132,913	8,264	141,177	3,664	8,042	11,706	115,944
	236,621	3,653	172,712	11,243	183,955	4,666	10,588	15,254	150,370
Staff of Administrative Regiments not included in the Returns of any Corps	1,438	..	1,472	74	1,546	271	..	271	1,383
Grand Total ..	238,059	3,653	174,184	11,317	185,501	4,937	10,588	15,525	151,753

STRENGTH OF THE VOLUNTEER FORCE.

FROM 1ST DECEMBER 1863,

TO

1ST NOVEMBER 1875,

INCLUSIVE.

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1863.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	1,156	520	208	728	382	1·42	52·47
Artillery	34,558	18,833	7,219	26,052	..	72·29	..
Engineer	5,095	2,326	1,431	3,757	1,468	61·91	39·07
Mounted Rifle	826	425	123	548	219	77·55	39·96
Rifle	184,521	91,407	40,443	131,850	45,802	69·32	34·73
Total	226,156	113,511	49,424	162,935	47,871	69·66	34·96

1st December 1864.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	1,040	535	262	797	376	67·12	47·17
Artillery	35,965	22,090	7,902	29,992	..	73·65	..
Engineer	5,136	3,237	1,106	4,343	2,748	74·53	63·27
Mounted Rifle	705	328	218	546	176	60·07	32·23
Rifle	182,644	97,517	37,349	134,866	59,326	72·30	43·98
Total	225,490	123,707	46,837	170,544	62,626	72·53	44·55

STRENGTH OF THE VOLUNTEER FORCE

1st December 1865.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	1,055	609	221	830	492	73 37	59·27
Artillery	37,331	25,481	6,529	32,010	..	79·6	..
Engineer	5,859	3,745	1,078	4,823	3,360	77·64	69 66
Mounted Rifle	575	333	105	438	123	76 02	23·08
Rifle	181,841	103,630	36,703	140,333	62,005	73·85	44·16
Total	226,661	133,848	44,636	178,484	65,980	74·99	45 04

1st December 1866.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	995	539	304	843	472	63·93	55 99
Artillery	38,922	27,422	6,332	33,754	..	81·24	..
Engineer	6,159	4,354	879	5,233	4,014	83·22	76 7
Mounted Rifle	575	281	153	434	118	64·74	27·18
Rifle	182,751	110,253	31,048	141,301	73,681	78·02	52·14
Total	229,402	142,849	38,716	181,565	78,285	78·67	52 96

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1867.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms
Light Horse	935	507	192	699	458	72·53	65·52
Artillery	40,666	30,611	4,897	35,508	..	86·2	..
Engineer	6,580	4,715	796	5,511	4,301	85·55	78·04
Mounted Rifle	575	272	122	394	114	69·03	28·93
Rifle	187,056	119,111	26,641	145,752	85,715	81·72	58·8
Total	235,812	155,216	32,648	187,864	90,588	82 62	59·45

1st December 1868.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	875	601	151	752	506	79·92	67·28
Artillery	42,733	33,654	4,230	37,884	..	88·83	..
Engineer	7,780	5,652	941	6,593	5,212	85·72	79·05
Mounted Rifle	635	275	160	435	109	63·21	25·05
Rifle	193,725	130,116	23,414	153,530	96,397	84·74	62·78
Total	245,748	170,298	28,896	199,194	102,224	85·49	63·37

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1869.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.
Light Horse	870	511	156	667	423	76·61	63·41
Artillery	42,413	33,645	3,814	37,459	..	89·81	..
Engineer	8,100	5,947	842	6,789	5,392	87·59	79·42
Mounted Rifle	600	271	116	387	117	70·02	30·23
Rifle	192,948	128,103	21,882	149,985	99,628	85·41	66·42
Total	244,931	168,477	26,810	195,287	105,560	86·27	66·88

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1870.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained ExtraCertificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 30 Nov. 1870.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Mounted Rifle and Rifle Arms.	Percentage of men present at Inspection to Enrolled.
Light Horse	1,055	659	182	841	404	25	582	78·35	48·03	69·2
Artillery	42,457	33,867	3,567	37,434	..	1,830	27,029	90·47	..	72·2
Engineer	8,100	6,278	819	7,097	5,763	198	5,038	88·45	81·2	70·98
Mounted Rifle	300	147	49	196	120	4	149	75·	61·22	76·02
Rifle	191,517	128,231	18,605	196,836	106,608	6,328	105,653	65·14	54·15	53·67
	243,429	169,182	23,222	192,404	112,895	8,385	138,451	87·93	72·84	71·95
Staff of Administrative Regiments not included in the Returns of any Corps ..	1,537	1,489	..	1,489	866	72	*1,450	100·	58·15	97·38
Grand Total	244,966	170,671	23,222	193,893	113,761	8,457	139,901	88·02	72·7	72·15

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1871.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained Extra Certificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 30 Nov. 1871.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
Light Horse	1,115	600	236	836	311	48	537	71·77	37·2	64·23
Artillery	42,777	33,332	3,565	36,897	..	2,292	25,935	90·33	..	70·29
Engineer	7,900	5,950	682	6,632	5,585	301	4,714	89·71	84·21	71·07
Mounted Rifle	240	122	37	159	107	7	116	76·72	67·29	72·95
Rifle	192,663	131,137	15,469	146,606	110,764	7,875	105,592	89·44	75·55	72·02
	244,695	171,141	19,989	191,130	116,767	10,523	136,894	89·54	75·7	71·62
Staff of Administrative Regiments not included in the Returns of any Corps ..	1,537	1,478	..	1,478	954	119	*1,440	100·	64·54	97·42
Grand Total	246,232	172,619	19,989	192,608	117,721	10,642	138,334	89·62	75·6	71·82

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1872.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained Extra Certificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1872.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
Light Horse	1,115	545	158	703	286	58	498	77·52	40·68	70·83
Artillery	43,146	30,849	3,065	33,914	..	2,387	25,898	90·96	..	76·36
Engineer	8,010	5,751	423	6,174	5,436	355	4,922	93·14	88·01	79·72
Mounted Rifle	300	101	91	192	67	8	111	52·6	34·89	57·81
Rifle	190,727	122,080	13,805	135,885	107,332	8,647	105,123	89·84	78·98	77·36
	2432,98	159,326	17,542	176,868	113,121	11,450	136,552	90·08	79·13	77·26
Staff of Adminstrative Regiments not included in the Returns of any Corps ..	1,520	1,411	..	1,411	959	132	*1,370	100·	67·96	97·09
Grand Total	244,818	160,737	17,542	178,279	114,080	11,582	137,922	90·16	79·02	77·36

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1873.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1873.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
Light Horse	995	488	141	629	51	466	77·58	74·08
Artillery	42,666	29,768	3,162	32,930	2,612	24,987	90·39	75·87
Engineer	8,210	5,523	544	6,067	422	4,742	91·03	78 16
Mounted Rifle	275	122	53	175	11	118	69·71	67·42
Rifle	186,427	115,927	14,738	130,665	9,649	103,414	88·72	79·14
	238,573	151,828	18,638	170,466	12,745	133,727	89 06	78·44
Staff of Administrative Regiments not included in the Returns of any Corps	1,494	1,388	83	1,471	163	1,388*	94·35	94·35
Grand Total	240,067	153,216†	18,721	171,937	12,911	135,115	89·11	78·58

* Approximate.

† The Efficients of 1873 correspond, as to qualifications and amount of Capitation Allowance earned (30*s.*), with the Extra Efficients of previous years.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1874.

Arm.	Maximum Establishment.	Supernumeraries.	Efficients.	Non-Efficients.	Total Enrolled.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1874.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
Light Horse	995	9	400	156	556	36	370	71·94	66·54
Artillery	42,026	649	30,827	2,723	33,550	2,770	26,184	91·88	78·04
Engineer	8,410	210	5,842	459	6,301	484	4,943	92·71	78·44
Mounted Rifle	300	..	132	43	175	16	145	75·42	82·85
Rifle	133,473	2,384	122,492	10,831	133,323	10,643	107,309	91·87	80·48
	235,204	3,252	159,693	14,212	173,905	13,949	138,951	91·82	79·9
Staff of Administrative Regiments not included in the Returns of any Corps	1,481	..	1,407	75	1,482	203	1,407*	94·93	94·93
Grand Total	236,685	3,252	161,100	14,287	175,387	14,152	140.358	91·85	80·02

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1875.

Arm.	Maximum Establishment.	Supernumeraries.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.			No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
						Officers.	Serjeants.	Total.			
Light Horse	660	9	366	102	468	22	14	36	358	78·2	76·49
Artillery	42,777	690	31,823	2,630	34,453	813	2,060	2,873	27,081	92·36	78·6
Engineers	8,710	90	6,295	735	7,030	137	368	505	5,433	89·54	77·28
Mounted Rifle	240	..	139	38	177	10	5	15	140	78·53	79·09
Rifle	184,414	2,544	128,628	8,801	137,429	3,468	7,716	11,184	111,367	93·59	81·03
	236,801	3,333	167,251	12,306	179,557	4,450	10,163	14,613	144,379	93·14	80·4
Staff of Administrative Regiments not included in the returns of any Corps	1,460	..	1,458	65	1,523	256	..	256	1,374	95.73	90·21
Grand Total	238,261	3,333	168,709	12,371	181,080	4,706	10,163	14,869	145,753	93·16	80·49

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1876.

Arm,	Maximum Establishment.	Supernumeraries.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.			No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1876.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
						Officers.	Sergeants.	Total.			
Light Horse	720	9	444	106	550	22	21	43	470	80·72	85·45
Artillery	42,155	890	32,393	2,229	34,622	837	2,119	2,956	27,765	93·56	80·19
Engineers	8,910	140	6,856	571	7,427	135	396	531	6,086	92·31	81·94
Mounted Rifle	240	..	106	73	179	8	10	18	105	59·21	58·65
Rifle..	184,596	2,614	132,913	8,264	141,177	3,664	8,042	11,706	115,944	94·14	82·12
	236,621	3,653	172,712	11,243	183,955	4,666	10,588	15,254	150,370	93·88	81·19
Staff of Administrative Regiments not included in the returns of any Corps	1,438	..	1,472	74	1,546	271	..	271	1,383	95·21	89·45
Grand Total	238,059	3,653	174,184	11,317	185,501	4,937	10,588	15,525	151,753	93·89	81·8

RECAPITULATION OF TOTALS OF ALL ARMS.

Year.	Maximum Establishment.	Supernumeraries.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Who have obtained Certificates of Proficiency.			Present at Inspection.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
							Officers.	Serjeants.	Total.				
1863 ..	226,156	..	113,511	49,424	162,935	47,871	..	..	..	..	69·66	34·96	..
1864 ..	225,490	..	123,707	46,837	170,544	62,626	..	..	..	..	72·53	44 55	..
1865 ..	226,661	..	133,848	44,636	178,484	65,980	..	..	..	..	74·99	45·04	..
1866 ..	229,402	..	142,849	38,71	181,565	78,285	..	..	..	..	78·67	52·96	..
1867 ..	235,812	..	155,216	32,648	187,864	90,588	..	..	..	..	82·62	59·45	..
1868 ..	245,748	..	170,298	28,896	199,194	102,224	..	..	..	..	85·49	63·37	..
1869 ..	244,931	..	168,477	26,810	195,287	105,560	..	..	..	..	86·27	66·88	..
1870 ..	244,966	..	170,671	23,222	193,893	113,761	..	..	8,457	139,901	88·02	72·7	72·15
1871 ..	246,232	..	172,619	19,989	192,608	117,721	..	..	10,064	138,334	89·62	75·6	71·82
1872 ..	244,818	..	160,737	17,542	178,279	114,080	..	..	11,582	137,922	90·16	79 02	77·36
1873 ..	240,067	..	153,216	18,721	171,937	..	..	..	12,911	135,115	89·11	..	78·58
1874 ..	236,685	3,252	161,100	14,287	175,387	..	..	..	14,152	139,858	91·85	..	79·74
1875 ..	238,261	3,333	168,709	12,371	181,080	..	4,706	10,163	14,869	145,753	93·16	..	80·49
1876 ..	238,059	3,653	174,184	11,317	185,501	..	4,937	10,588	15,525	151,753	93·89	..	81·8

[1750—2 | 77—80wo]

FINANCE ACCOUNTS

OF

THE UNITED KINGDOM

OF

GREAT BRITAIN AND IRELAND,

FOR THE FINANCIAL YEAR

1876-77,

ENDED 31ST MARCH 1877.

Treasury Chambers, Whitehall,
7 August 1877.

W. H. SMITH.

(*Presented to Parliament pursuant to Act* 17 *&* 18 *Vict. c.* 94, *s.* 2.)

Ordered, by The House of Commons, *to be Printed,*
8 *August* 1877.

FINANCE ACCOUNTS,

1876-77.

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ACCOUNT

OF

EXCHEQUER RECEIPTS AND ISSUES

IN

THE FINANCIAL YEAR

1876-77.

PUBLIC INCOME and EXPENDITURE, and other EXCHEQUER

CASH ACCOUNT showing the whole of the RECEIPTS into and ISSUES out Exchequer at the Commencement

RECEIPTS.	AMOUNTS.	
	£. s. d.	£. s. d.
BALANCE in the Exchequer on the 1st April 1876:		
At the Bank of England	3,826,896 – –	
At the Bank of Ireland	1,292,691 2 –	
		5,119,587 2 –
Revenue received into the Exchequer, viz.:—		
CUSTOMS	19,922,000 – –	
EXCISE	27,736,000 – –	
STAMPS	10,890,000 – –	
LAND TAX AND HOUSE DUTY	2,532,000 – –	
PROPERTY AND INCOME TAX	5,280,000 – –	
POST OFFICE	6,000,000 – –	
TELEGRAPH SERVICE	1,305,000 – –	
CROWN LANDS (NET)	410,000 – –	
MISCELLANEOUS	4,490,036 – 1	
TOTAL INCOME		78,565,036 – 1
Carried forward £.		83,684,623 2 1

Note.—References to details of the Exchequer Receipts and Issues will be found at pp. 13 and 33.

RECEIPTS and ISSUES, in the Year 1876–77.

of the Exchequer in the Year ended 31st March 1877, and the Balances in the and Termination of the Year.

ISSUES.	AMOUNTS.	
	£. s. d.	£. s. d.
Permanent Charge of Debt:		
INTEREST AND MANAGEMENT OF THE DEBT	21,588,981 16 5	
TERMINABLE ANNUITIES	5,374,198 9 6	
	26,963,180 5 11	
INTEREST OF EXCHEQUER BILLS, &c.	112,039 7 6	
NEW SINKING FUND	624,780 6 7	
		27,700,000 – –
Interest, &c., not forming part of the above Permanent Charge, viz.:—		
INTEREST ON LOANS FOR LOCAL PURPOSES	142,921 4 7	
INTEREST AND PRINCIPAL OF EXCHEQUER BONDS (SUEZ)	149,912 10 –	
		292,833 14 7
		27,992,833 14 7
Other Charges on Consolidated Fund:		
CIVIL LIST	406,709 19 9	
ANNUITIES AND PENSIONS	316,668 17 10	
SALARIES AND ALLOWANCES	96,850 – 6	
COURTS OF JUSTICE	631,791 8 9	
MISCELLANEOUS SERVICES (Ordinary)	143,018 8 9	
		1,595,038 15 7
Voted Supply Services, viz.:—		
ARMY SERVICES	15,251,354 18 3	
Ditto - Charges on Account of Troops in India	170,000 – –	
ARMY PURCHASE COMMISSION	498,362 – 1	
NAVY SERVICES	11,364,383 2 3	
ASHANTEE EXPEDITION (Vote of Credit)	2,017 5 –	
	27,286,117 5 7	
MISCELLANEOUS CIVIL SERVICES	13,333,851 4 11	
CUSTOMS AND INLAND REVENUE DEPARTMENTS	2,766,279 9 1	
POST OFFICE	3,159,218 – 8	
TELEGRAPH SERVICE	1,141,000 – –	
POST OFFICE PACKET SERVICE	850,889 6 2	
		48,537,355 6 5
TOTAL ORDINARY EXPENDITURE Carried forward	£.	78,125,227 16 7

CASH ACCOUNT showing the whole of the Receipts into and Issues out of

RECEIPTS.		AMOUNTS.	
		£. s. d.	£. s. d.
Brought forward		- - -	83,684,623 2 1
OTHER EXCHEQUER RECEIPTS, VIZ. :—			
Repayment of Advances charged on Consolidated Fund:			
For Purchase of Bullion		325,000 - -	
For Public Works and Improvements, &c.		1,078,318 7 6	
			1,403,318 7 6
Repayment of Advances voted in Supply:			
For Greenwich Hospital and School		- - -	143,049 1 8
Money raised by Creation of Debt:			
FUNDED (Terminable Annuities):			
Amount raised for Localisation of the Military Forces, per Act 35 & 36 Vict. c. 68, by Annuities amounting to 118,272 *l.*, commencing 1st August 1876, to expire on 1st August 1885		900,000 - -	
UNFUNDED :—	£.		
Exchequer Bonds for Local Loans,	1,060,000		
Exchequer Bonds for Purchase of Suez Canal Shares (remainder of 4,000,000 *l.*)	700,000		
		1,760,000 - -	
Exchequer Bills in Exchange for Bills Cancelled:	£.		
Dated 11th June 1876 (for Bills of 11th June 1871)	2,585,300		
Dated 11th March 1877 (for Bills of 11th March 1872)	1,467,200		
		4,052,500 - -	
Exchequer Bills dated 11th March 1877, to replace Bills paid off		125,100 - -	
Treasury Bills per Act 40 Vict. c. 2, for Local Loans		2,200,000 - -	
			9,037,600 - -
Temporary Advances received:			
Advances for Deficiency of the Consolidated Fund (per Act 29 & 30 Vict. c. 39), received as under, viz. :—			
	£.		
In the Quarter ended 30th September 1876	1,000,000		
In the Quarter ended 31st December 1876	2,500,000		
In the Quarter ended 31st March 1877	2,800,000		
		6,300,000 - -	
			6,300,000 - -
			100,568,590 11 3

Note.—References to details of the Exchequer Receipts and Issues will be found at pp. 13 and 33.

the Exchequer in the Year ended 31st March 1877, &c.—*continued.*

ISSUES.	AMOUNTS.	
	£. s. d.	£. s. d.
Brought forward - - -	- - -	78,125,227 16 7
EXPENSES of LOCALISATION of the MILITARY FORCES defrayed out of Money raised by Terminable Annuities (as per contra) - - - - - - - - - -	- - -	900,000 - -
TOTAL EXPENDITURE (including Localisation of the Military Forces)	- - £.	79,025,227 16 7
OTHER EXCHEQUER ISSUES, VIZ. :—		
Advances by way of Loan charged on Consolidated Fund :		
For Purchase of Bullion for Coinage - - - -	455,000 - -	
For Public Works and Improvements, &c. - - -	3,771,063 11 3	
		4,226,063 11 3
Advances voted in Supply :		
For Greenwich Hospital and School - - - - -	- - -	143,049 1 8
Redemption of Funded Debt :		
Amount issued under—		
New Sinking Fund (*see* page 9) - - - - -	—	
Redemption of Unfunded Debt :		
Exchequer Bills exchanged for New Bills (as per contra)	4,052,500 - -	
Exchequer Bills paid off - - - - - - - -	133,100 - -	
Exchequer Bonds Paid Off, viz. :— £.		
Series B., dated 28 March 1876. - - - 500,000		
„ C. „ 30 „ „ - - - 200,000		
	700,000 - -	
		4,885,600 - -
Temporary Advances repaid :		
Advances for Deficiency of Consolidated Fund, repaid as under :		
Out of Growing Revenue - - - - - - -	- - -	6,300,000 - -
BALANCE in the Exchequer on the 31st March 1877 :		
At the Bank of England - - - - - - -	4,815,796 16 4	
At the Bank of Ireland - - - - - - -	1,172,853 5 5	
		5,988,650 1 9
	£.	100,568,590 11 3

REFERENCES TO DETAILS

OF

EXCHEQUER RECEIPTS, 1876-77.

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Property and Income Tax	Ditto	18
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PUBLIC REVENUE.

ABSTRACT STATEMENT of the GROSS and NET RECEIPTS on account of the PUBLIC REVENUE of the UNITED KINGDOM, in the Year ended 31st March 1877; the AMOUNTS paid into the EXCHEQUER in the Year, and the BALANCES, BILLS, and ADVANCES outstanding at the Commencement and Termination of the Year.

HEADS OF REVENUE.	Reference to Details of Gross and Net Receipts.	RECEIPT OF INCOME.			
		ADVANCES Repayable, and BALANCES and BILLS Outstanding on 31st March 1876.	GROSS RECEIPTS.	Repayments, Allowances, Discounts, Drawbacks, Bounties, &c.	NET RECEIPTS within the Year after deducting Repayments, &c.	TOTALS of NET RECEIPTS and BALANCES, &c.
	Pages.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
CUSTOMS*	15	514,033 6 –	20,044,263 9 1	147,877 1 7	19,896,386 7 6	20,410,419 13 6
EXCISE	16		28,408,051 17 1½	726,529 6 –½	27,681,522 11 –½	
STAMPS	17		11,126,493 10 –½	249,430 1 10½	10,877,063 8 2¼	
LAND TAX AND HOUSE DUTY	18	1,413,988 11 4½	2,545,351 14 5½	7,177 17 6½	2,538,173 16 11	47,794,839 12 1½
INCOME TAX	18		5,840,718 4 8¾	56,627 – 1½	5,284,091 4 7¼	
POST OFFICE	19	1,306,810 17 6½	6,021,266 19 11½	13,327 14 11½	6,007,939 5 –	7,314,750 2 6½
TELEGRAPH SERVICE	19	15,234 14 9½	1,607,050 6 5	308,492 5 8	1,298,558 – 9	1,313,792 15 6½
CROWN LANDS	20	51,116 11 5	488,294 14 6	- - -	488,294 14 6	539,411 5 11
MISCELLANEOUS	21	54,761 5 –	4,517,561 – 8	- - -	4,517,561 – 8	4,572,322 5 8
TOTALS	£.	3,355,945 6 1	80,099,051 16 11½	1,509,461 7 9	78,589,590 9 2½	81,945,535 15 3½

HEADS OF REVENUE.	DISPOSAL OF INCOME.				
	PAYMENTS out of the Revenue in its Progress to the Exchequer.	PAYMENTS into the EXCHEQUER.	ADVANCES Repayable, and BALANCES and BILLS Outstanding, 31st March 1877.		TOTALS
			ADVANCES Repayable from VOTES for Revenue Departments.	Other Advances Repayable, and BALANCES and BILLS Outstanding.	
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
CUSTOMS*	- - -	19,922,000 – –	246,793 3 1	241,626 10 5	20,410,419 13 6
EXCISE	- - -	27,736,000 – –			
STAMPS	- - -	10,890,000 – –			
LAND TAX AND HOUSE DUTY	- - -	2,532,000 – –	430,871 7 2½	925,968 4 11	47,794,839 12 1½
INCOME TAX	- - -	5,280,000 – –			
POST OFFICE	- - -	6,000,000 – –	716,987 13 3¾	597,762 9 2½	7,314,750 2 6½
TELEGRAPH SERVICE	- - -	1,305,000 – –	- - -	8,792 15 6½	1,313,792 15 6½
CROWN LANDS	83,201 11 4	410,000 – –	- - -	46,209 14 7	539,411 5 11
MISCELLANEOUS	- - -	4,490,036 – 1	- - -	† 82,286 5 7	4,572,322 5 8
TOTALS £.	83,201 11 4	78,565,036 – 1	1,394,652 3 7½	1,902,646 – 3	81,945,535 15 3½

£. 3,297,298. 3. 10½.

* The Duties (Net) collected by the Customs on behalf of the Inland Revenue on the delivery for home consumption of British Spirits deposited in Customs Warehouses (under Act 27 & 28 Vict. c. 11), amounted in the year 1876–77, with the balance in hand at the commencement of the year, to 3,503,574 *l.* 6 *s.* 4 *d.*; of this, 3,400,852 *l.* 17 *s.* was paid over to the Inland Revenue, leaving a balance in hand of the Customs on 31st March 1877, of 102,721 *l.* 9 *s.* 4 *d.*

† This sum represents the aggregate balance of "Miscellaneous Receipts" outstanding by "Revenue Departments" only.

DETAILED STATEMENT of the Gross Receipts and Net Produce of the Revenue of the United Kingdom in the Year ended 31st March 1877, showing the Amount Collected on each Article or under each Head of Duty, and also the Amount of Payments out of the Gross Receipts during the said Year for Drawbacks, and for Repayments and Allowances on Over-entries, Damages, &c.

CUSTOMS.

Articles usually Contributing not less than £.1,000 Annually, together with Customs Charges.	Gross Receipts.	Payments out of the Gross Receipts.		Net Produce.
		Drawbacks.	Repayments on Over-entries, Damages, &c.	
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Beer Spruce	2,836 1 –	- - -	28 3 1	2,807 17 11
—— Of other sorts, including Mum	1,137 – –	- -	19 11 5	1,117 8 7
Chicory	61,723 13 9	- -	29 1 8	61,694 12 1
Cocoa, Cocoa Husks, and Chocolate	44,138 9 8	- -	56 5 8	44,082 4 –
Coffee	203,445 15 4	2,800 4 2	227 6 1	200,418 5 1
Currants	333,498 9 11	- -	747 8 10	332,751 1 1
Figs	34,784 8 1	- -	282 4 4	34,502 3 9
Plate, Gold and Silver	8,040 4 2	- -	101 11 –	7,938 13 2
Plums, Dried or Preserved, French Plums and Prunelloes	2,621 2 3	- -	35 8 7	2,585 13 8
Prunes	6,539 2 8	- -	42 10 10	6,496 11 10
Raisins	152,041 7 2	- -	793 10 2	151,247 17 –
Spirits, Colonial and Foreign:				
Rum	2,516,589 16 10	- -	330 2 5	2,516,259 14 5
Brandy	2,306,747 7 8	- -	2,186 13 3	2,304,560 14 5
Geneva	117,458 7 6	- -	252 18 11	117,205 8 7
Of other sorts	831,783 7 5	- -	557 10 4	831,225 17 1
Tea	3,725,941 14 1	- -	2,795 3 5	3,723,146 10 8
Tobacco and Snuff	7,864,113 3 4	86,542 9 3	1,995 19 5	7,775,574 14 8
Wine	1,741,430 13 3	- -	2,875 13 4	1,738,554 19 11
All other Articles	2,958 12 4	- -	41 6 1	2,915 13 4
Loss on Light Gold	- - -	- -	1 12 11	
Charges on Deliveries from the Bonded Warehouses	37,052 18 5	- -	18 4 2	37,034 14 3
	19,994,881 14 10	89,342 13 5	13,418 5 11	19,892,120 15 6
Duties collected at the Isle of Man	49,381 14 3	45 2 9	7 8 3	
Payments on Account thereof, under 29 & 30 Vict. c. 23	- - -	- -	45,063 11 3	4,265 12 –
TOTAL CUSTOMS £.	20,044,263 9 1	89,387 16 2	58,489 5 5	19,896,386 7 6

£.147,877. 1. 7.

Statistical Department, Custom House, London, 8 June 1877.

S. Seldon, Principal.

DETAILED STATEMENT of the Gross Receipts and Net Produce of the Revenue—*continued.*

EXCISE.

HEADS OF DUTY.	Gross Receipts.	Drawbacks and Bounties of the Nature of Drawbacks.	Discounts and Parliamentary Allowances.	Allowances and Repayments on Overcharges, Damaged Goods, &c.	Net Produce.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Chicory	2,942 8 8¾	- - -	- - -	- - -	2,942 8 8¾
Licenses, viz. :—					
Auctioneers, Appraisers, &c.	75,054 - -	- - -	- - -	54 - -	75,000 - -
Beer, Cider, and Perry	372,991 18 2¼	- - -	- - -	279 18 6	372,711 19 8¼
Brewers	446,037 14 9	- - -	- - -	15,985 7 9	430,052 7 -
Dog	349,743 5 -	- - -	- - -	130 10 -	349,612 15 -
Establishment, viz. :—					
Armorial Bearings	82,478 11 -	- - -	- - -	330 15 -	82,147 16 -
Carriages	553,743 8 -	- - -	- - -	553 1 -	553,190 7 -
Horses	- - -	- - -	- - -	46 14 6	*—
Male Servants	167,561 5 -	- - -	- - -	557 5 -	167,004 - -
Game	200,302 - -	- - -	- - -	261 - -	200,041 - -
Gold and Silver Plate	41,280 2 3	- - -	- - -	37 7 6	41,242 14 9
Gun	77,210 10 -	- - -	- - -	142 - -	77,068 10 -
Hawkers and Pedlars	23,198 12 -	- - -	- - -	14 - -	23,184 12 -
Maltsters	15,472 12 8	- - -	- - -	40 3 3	15,432 9 5
Medicine Vendors	3,955 15 -	- - -	- - -	2 - -	3,953 15 -
Pawnbrokers	32,520 - -	- - -	- - -	7 10 -	32,512 10 -
Refreshments House	8,235 5 7½	- - -	- - -	6 19 10½	8,228 5 8¼
Spirit (Distillers, Dealers and Publicans)	811,814 14 4½	- - -	- - -	418 6 8½	811,396 7 7¾
Tobacco	87,766 10 3½	- - -	- - -	10 3 8½	87,756 6 6¾
Wine and Sweets	210,675 4 7½	- - -	- - -	162 12 6¾	210,512 12 -¼
Other than the foregoing	7,558 1 2½	- - -	- - -	3 - -	7,555 1 2½
Malt	8,274,645 4 2½	231,689 5 4¾	- - -	2,577 18 3	8,040,378 - 6¼
Railways	728,728 16 10	- - -	- - -	11 - -	728,717 16 10
Spirits	15,346,369 13 11	197,254 11 2½	274,664 2 -	1,286 4 -	14,873,164 16 8½
Sugar used in Brewing	487,766 3 6½	- - -	- - -	3 9 9¾	487,762 13 8¼
TOTAL EXCISE £.	28,408,051 17 1¼	428,943 16 7¼	274,664 2 -	22,921 7 5½	27,681,569 5 6¾
			£. 726,529. 6. 0¼.		
* *Deduct*,—Horse License Duty repaid					46 14 6
				£.	27,681,522 11 -¾

DETAILED STATEMENT of the Gross Receipts and Net Produce of the Revenue—*continued.*

STAMPS.

HEADS OF DUTY.	Gross Receipts.	Drawbacks, and Bounties of the Nature of Drawbacks.	Discounts and Parliamentary Allowances.	Allowances and Repayments on Overcharges, Damaged Goods, &c.	Net Produce.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Probates of Wills and Letters of Administration	2,339,914 7 6	- -	1,376 4 2	153,558 18 11	2,184,979 4 5
Legacies and Successions	3,684,444 19 2	- -	890 8 8	7,752 3 1	3,675,802 7 5
Total Probate and Legacy Duties	6,024,359 6 8	- -	2,266 12 10	161,311 2 -	5,860,781 11 10
Deeds and other Instruments not included under the following Heads	2,114,918 12 -½	- -	9,183 5 11	14,184 7 2½	2,091,550 18 11½
Bills of Exchange	780,434 6 10	- -	9,527 12 -	2,363 17 7	768,542 17 3
Bankers' Notes	975 4 2	- -	- -	208 6 8	766 17 6
Composition for the Duties on the Bills and Notes of the Banks of England and Ireland, and of Country Bankers	140,852 3 10	- -	- -	- - -	140,852 3 10
Cards	13,928 11 -	- -	194 5 -	- - -	13,734 6 -
Gold and Silver Plate	82,027 2 3	8,252 9 5½	939 11 1	- - -	72,835 1 8½
Licenses and Certificates	142,874 16 -	- -	- -	54 - -	142,820 16 -
Marine Insurances	119,982 - 11	- -	801 7 -	205 1 8	118,975 12 3
Medicine	118,221 12 7½	- -	5,242 15 2½	- - -	112,978 17 5
Patents for Inventions	169,042 - -	- -	400 - -	49 5 -	168,592 15 -
Receipts, Drafts, and other 1*d.* Stamps	816,991 19 3	- -	27,351 15 10	510 14 4	789,129 9 1
TOTAL Stamps, exclusive of Fee Stamps £.	10,524,607 15 7	8,252 9 5½	55,907 4 10½	178,886 14 5½	10,281,561 6 9½
Fee Stamps, viz.:—					
Admiralty Court (Ireland)	782 - 6	- -	11 5 -	- - -	770 15 6
Bankruptcy Court	73,649 4 11	- -	404 12 -	13 7 6	73,231 5 5
Chancery Court (Ireland)	14,304 11 -	- -	208 4 -	6 3 -	14,090 4 -
Chancery Fund (ditto)	3,728 3 6½	- -	42 1 6	- - -	3,686 2 -½
Chimney Sweepers' Certificate	150 - -	- -	- -	- 12 6	149 7 6
Civil Bill Fund (Ireland)	17,431 18 6	- -	9 8 3	- - -	17,422 10 3
Civil Service Commission	5,433 7 -	- -	51 - 10	74 2 6	5,308 3 8
Coal Mines Regulation	750 - -	- -	- -	- 5 -	749 15 -
Companies Registration	16,160 1 6	- -	8 15 6	115 11 -	16,035 15 -
Copyhold, &c. Commission	7,129 7 6	- -	105 16 6	- - -	7,023 11 -
Crown Office	3,698 9 4	- -	- -	- - -	3,598 9 4
Divorce and Matrimonial Cause (Ireland)	94 13 -	- -	- 10 6	- - -	94 2 6
Explosive Substances	149 - -	- -	- -	1 - -	148 - -
Great Seal Patent	249 - -	- -	- -	- - -	249 - -
Judgments Registry Fund (Ireland)	2,729 16 6	- -	39 6 -	- - -	2,690 10 6
Judicature	195,901 15 11	- -	2,621 14 -	40 14 3	193,239 7 8
Ditto Probate Court (England)	129,995 9 -	- -	998 15 -	8 10 -	128,988 4 -
Land Registry (England)	827 3 -	- -	11 8 -	- - -	815 15 -
Law Courts (Scotland)	4,655 - -	- -	69 16 6	3 12 6	4,581 11 -
Law Fund (Ireland)	9,623 - -	- -	117 16 6	- - -	9,505 3 6
London Gazette	26,739 - 6	- -	397 14 6	3 4 2	26,338 1 10
Lord Chancellor's Presentation	565 - -	- -	- -	- - -	565 - -
Naturalization	1311 10 -	- -	- -	8 - -	303 10 -
Pedlars' Certificates (Metropolis)	1,265 - -	- -	- -	5 15 -	1,259 5 -
Police Courts	8,031 7 -	- -	- -	- - -	8,031 7 -
Probate Court (Ireland)	18,210 3 3	- -	153 16 6	- - -	18,056 6 9
Public Record	555 10 -	- -	8 8 -	- 5 -	546 17 -
Railway Commission	517 5 -	- -	6 18 -	15 10 4	494 16 8
Record of Title (Ireland)	31 12 -	- -	- -	- - -	31 12 -
Register House (Scotland)	44,146 5 -	- -	419 12 6	283 - 9	43,443 11 9
Registration of Deeds (Ireland)	14,171 - 6	- -	117 - -	- - -	14,054 - 6
TOTAL Fee Stamps £.	601,885 14 5½	- -	5,803 19 7	579 13 1	595,502 1 4½
TOTAL STAMPS £.	11,126,493 10 -½	8,252 9 5½	61,711 4 5½	179,466 7 11½	10,877,063 8 2½

£. 249,430. 1. 10½.

DETAILED STATEMENT of the Gross Receipts and Net Produce of the Revenue—*continued.*

LAND TAX AND HOUSE DUTY, &c.

HEADS OF DUTY.	Gross Receipts.	Discounts and Parliamentary Allowances.	Allowances and Repayments.	Net Produce.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
LAND TAX on Lands and Tenements	1,084,889 15 10¼	- -	6,820 19 1¼	1,078,068 16 9
Inhabited House Duty - - -	1,460,461 18 7	- -	356 18 5	1,460,105 - 2
TOTAL LAND TAX and HOUSE DUTY, &c. -	2,545,351 14 5¼	- -	7,177 17 6¼	2,538,173 16 11
		£. 7,177. 17. 6¼.		

INCOME TAX.

	Gross Receipts.	Discounts and Parliamentary Allowances.	Allowances and Repayments.	Net Produce.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
PROPERTY and INCOME TAX - -	5,340,718 4 8¾	8,300 11 10	48,326 8 3½	5,284,091 4 7¼
		£. 56,627. 0. 1½.		

Memo.—The following is an approximate appropriation, under the different Schedules, of the Net Produce of the Income Tax in the Year 1876–77. (It is necessarily based on the Assessments for 1875–76.)

	£.	£.
SCHEDULE A. Lands, Tenements, &c. - - - - - -	1,676,592	
„ B. Occupation of Lands, Tenements, &c. - - -	199,830	
„ C. Annuities, Dividends, &c. - - - - - -	460,783	5,284,091
„ D. Professions, Trades, &c. - - - - -	2,643,652	
„ E. Public Offices—Annuities from Public Revenues, &c. - - - - - - - - - -	303,234	

Inland Revenue Office,
30 May 1877.

Charles G. Turner,
Accountant and Comptroller General.

DETAILED STATEMENT of the Gross Receipts and Net Produce of the Revenue—*continued.*

POST OFFICE.

	£. s. d.	£. s. d.	Gross Receipts. £. s. d.	Returned, Refused, Mis-sent, and Re-directed Letters, Over-charges, and Returns, &c. £. s. d.	Net Produce. £. s. d.
Postage collected by Country Postmasters			53,315 16 9½		
Ditto in the Metropolis			98,567 10 11½		
Postage collected by Postmasters and Agents Abroad		131,225 6 10½			
Postage collected by Foreign Offices for Credit of Great Britain		76,934 6 1½			
		208,159 12 11½		13,327 14 11½	203,669 9 6½
Postage collected by Great Britain for Credit of Colonial Offices not under the control of the Imperial Post Office	51,149 – 7½				
Postage collected by Great Britain for Credit of Foreign Offices	91,896 15 7½				
		143,045 16 3			
			65,113 16 8½		
	£.		216,997 4 5½	13,327 14 11½	203,669 9 6½
Amount of Postage Stamps sold by Postmasters, Letter Receivers, &c.			4,890,677 13 9	– – –	4,890,677 13 9
Amount of Postage Stamps issued to Postmasters and Agents Abroad					
Amount of Postage Stamps sold by Stamp Distributors of Inland Revenue			658,278 18 2	– – –	658,278 18 2
Commission on Money Orders			229,307 14 8½	– – –	229,307 14 8½
Miscellaneous Receipts			26,005 8 10½	– – –	26,005 8 10½
	£.		6,021,266 19 11½	13,327 14 11½	6,007,939 5 –

General Post Office,
15 June 1877.

C. Court,
for Receiver and Accountant General.

TELEGRAPH SERVICE.

	Gross Receipts. £. s. d.	Payments Out. £. s. d.	Net Produce. £. s. d.
Amount received for the Transmission of Telegraphic Messages, &c. in Cash	193,934 5 1	308,492 5 8	1,298,558 – 9
Ditto ditto in Stamps	1,413,116 1 4		
£.	1,607,050 6 5	308,492 5 8	1,298,558 – 9

General Post Office,
15 June 1877.

C. Court,
for Receiver and Accountant General.

WOODS, FORESTS, AND LAND REVENUES OF THE CROWN.

RECEIPT:	£. s. d.	£. s. d.
BALANCES on 1st April 1876 (as per last Statement)		51,116 11 5
GROSS RECEIPTS:		
AMOUNT collected by the several Receivers of the Land Revenues in England, Wales, Ireland, and Scotland, in Alderney, and the Isle of Man, in the Year ended 31st March 1877	431,436 1 1	
AMOUNT arisen by Rents and Casual Revenues not included in the Receivers' Accounts	8,116 10 5	
AMOUNT arisen by Sale of Old Materials, and by Repayment of Moneys advanced for Surveys, and for Record Office and Docket Fees, and for Miscellaneous Receipts	5,780 9 10	
AMOUNT arisen by Sales of Bark, Timber, and Offal Wood, and Rents for the Temporary Occupation of Lands intended for Planting	42,961 13 2	
		488,294 14 6
	£.	539,411 5 11

EXPENDITURE:	£. s. d.	£. s. d.
CHARGES OF COLLECTION, viz.:		
SALARIES and Allowances to Deputy Surveyors and other Local Officers in the Woods and Forests	6,390 19 10	
PER-CENTAGE and Allowances to Receivers of the Land Revenues	9,681 17 2	
		16,072 17 –
OTHER PAYMENTS, viz.:		
PAYMENTS to Schools, Churches, and other Foundations, and Payments charged on the Land Revenue	7,712 18 2	
SALARIES and other Annual Allowances in the Department of the Wardens, Rangers, Keepers, and others holding Ancient Offices in the Parks and Forests	2,571 6 4	
PAYMENTS for Repairs, &c. on Crown Estates, and for Land, Property, and other Taxes payable on the same, and Allowances to Crown Tenants	22,548 14 –	
PAYMENTS for Repairing and Maintaining Buildings, Walls, Fences, Roads, and for making Inclosures and Plantations in the Royal Forests, &c., including Windsor and Bagshot, and upon Estates of the Crown reserved for the purpose of raising Navy Timber, together with Rates and Taxes charged thereon	34,295 15 10	
		67,128 14 4
PAID INTO THE EXCHEQUER		410,000 – –
BALANCES of the Accounts standing in the Names of the Commissioners of Her Majesty's Woods, &c. at the Banks of England and Ireland, and at the Royal Bank of Scotland, on the 31st March 1877	44,441 16 8	
BALANCES in the hands of the Receivers of the Land Revenue	1,387 16 7	
BALANCES in the hands of the Deputy Surveyors, &c. of the Woods and Forests (including Debts due by Purchasers of Produce)	2,497 15 9	
BALANCES in the hands of Stewards of Manors	126 7 1	
£.	48,453 16 1	
Less,—Other Balances	2,244 1 6	
		46,209 14 7
	£.	539,411 5 11

MISCELLANEOUS REVENUE.

DETAILED STATEMENT of the AMOUNT received into the EXCHEQUER, in the Year ended the 31st March 1877, under the Head of Miscellaneous Revenue.

ABSTRACT.

	£.	s.	d.
SMALL BRANCHES OF THE HEREDITARY REVENUE	56,857	3	10
BANK OF ENGLAND (Profits of Issue)	138,578	–	–
EGYPTIAN GOVERNMENT (Suez Canal)	139,110	2	3
INTEREST ON PUBLIC LOANS	654,572	6	11
FEES, &c. OF PUBLIC OFFICES	762,918	6	1
RECEIPTS BY NAVAL AND MILITARY DEPARTMENTS	902,535	11	11
MAGEE INDEMNITY	4,233	9	10
CONTRIBUTIONS FROM INDIAN REVENUES	898,356	19	9
ASHANTEE EXPEDITION	883	16	8
ARMY PURCHASE COMMISSION	24,472	4	–
RECEIPTS BY CIVIL DEPARTMENTS	481,533	16	6
RECEIPTS BY REVENUE DEPARTMENTS (including PACKET SERVICE)	356,097	8	5
INCOME OF GAZETTES	6,209	9	–
SAVINGS ON GRANTS OF PARLIAMENT, &c., AND OVER ISSUES REPAID	20,338	19	8
TREASURY CHEST	15,804	19	11
ISLE OF MAN	9,228	3	7
GREEK LOAN	15,833	7	–
CASUAL RECEIPTS	2,471	14	9
TOTAL MISCELLANEOUS REVENUE £.	4,490,036	–	1

DETAIL OF THE PRECEDING ABSTRACT.

SMALL BRANCHES OF THE HEREDITARY REVENUE:	£.	s.	d.	£.	s.	d.
On account of the Balance of the Crown's Share Account of the Crown's Nominee Fund, per Act 15 Vict. c. 3	40,000	–	–			
Hereditary Revenues received, per Act 1 Vict. c. 2	1,840	18	10			
Fines and Forfeitures received in the Justiciary and Sheriffs' Courts in Scotland	4,880	6	8			
Rent-charge from the Lagan Navigation Company, reserved to the Crown, per Acts (Local and Personal) 6 & 7 Vict. c. 104, s. 60, and 36 & 37 Vict. c. 65	296	17	6			
On account of Surplus Crown Revenues received in Guernsey	—					
On account of the Surplus Crown Revenues received in Jersey	600	–	–			
Proceeds of Unclaimed Wrecks	348	7	7			
Balance on the "Wreck and Salvage Account" in respect of Wrecks which came into the possession of the Board of Trade in 1873	8,797	19	10			
Fines and Penalties, Crown Office	60	–	–			
Fines received by Welsh Sheriffs	32	13	5			
				56,857	3	10
Carried forward £.				56,857	3	10

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£.	s.	d.	£.	s.	d.
BANK OF ENGLAND: Brought forward				56,857	3	10
Amount payable by the Bank of England, out of the Profits of Issue, for the Year to 5 April 1876 (formerly deducted from the gross charge payable to the Bank for management), per Act 24 Vict. c. 3				138,578	–	–
EGYPTIAN GOVERNMENT:						
Interest to 30 November 1876, at 5 per cent., on Purchase Money of Shares in the Suez Canal				139,110	2	3
INTEREST ON PUBLIC LOANS:						
*For Interest Received on Loans for Public Works, &c., originally advanced from the Exchequer, viz.:						
Colonial Docks	—					
Drainage of Land (Inclosure Commissioners), Great Britain	18,088	–	–			
Metropolis Interments	635	15	8			
Menai and Conway Bridges	2,582	14	8			
Sardinian Loan	43,713	11	11			
Loans by Public Works Loan Commissioners. Public Works Loan Fund, England and Ireland (Ordinary), (including 39 *l.* 18 *s.* 11 *d.* Tralee Harbour)	192,881	18	4			
South Wales Turnpike Trusts	15	19	1			
Annuity Tax Abolition (Edinburgh and Montrose)	939	6	3			
Belfast and County Down Railway	7,297	11	4			
Cattle Diseases Prevention	6,955	4	1			
Harbours and Passing Tolls, &c.	50,052	1	5			
Labouring Classes' Dwellings	6,730	12	9			
Portpatrick Railway Company	3,371	14	11			
Public Works (Manufacturing Districts)	37,973	1	3			
Railway Companies, Ireland (Temporary Advances)	8,297	17	6			
Elementary Education (School Board Loans)	151,166	–	9			
Sanitary Loans	45,762	18	6			
				521,444 *l.* 6 *s.* 2 *d.*		
West India Islands Relief	353	13	1			
Loans by Commissioners of Public Works, Ireland. Irish Land (Landlord and Tenant)	11,205	6	7			
Public Works Loan Fund, Ireland (Ordinary)	28,950	13	11			
Loans by late Commissioners	180	–	–			
Employment of the Poor	—					
Land Improvement, Ireland	27,418	4	11			
				67,754 *l.* 5 *s.* 5 *d.*		
						654,572 6 11
FEES, &c. OF PUBLIC OFFICES:						
ENGLAND:						
ADMIRALTY COURT REGISTRY.—Fees	1,339	1	5			
BANK OF ENGLAND.—Fees on Stock Certificates, 33 & 34 Vict. c. 71	752	14	–			
Carried forward £.	2,091	15	5			989,117 13 –

* The Acts under which the corresponding repayments of principal are made are specified on pages 88 and 89.

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.
Brought forward - - -	2,091 15 5	989,117 13 –
FEES, &c. OF PUBLIC OFFICES—*continued.*		
ENGLAND—*continued.*		
BANKRUPTCY COURT.—Fees, &c., under Act 32 & 33 Vict. c. 91 -	5,569 3 2	
BOARD OF TRADE:	£. s. d.	
Testing Anchors, Cables, Lime Juice, &c. - -	155 1 –	
Provisional Orders under various Acts - - -	1,540 – –	
Penalties under Merchant Shipping and Passenger Acts - - - - - - - - - -	1,418 9 9	
	3,113 10 9	
CENTRAL CRIMINAL COURT.—*See* Criminal Prosecutions, &c. -	—	
CIVIL LIST.—Receipt from for Salaries formerly payable to the Officers of the late Marshalsea, under Act 5 Vict. Sess 2, c. 22 -	615 – –	
COPYHOLD, INCLOSURE, AND TITHE COMMISSION.—For Searches -	380 15 –	
CONSULATES ABROAD:	£. s. d.	
Fees, &c.—General - - - - - - -	35,198 2 3	
" China and Japan - - - - -	6,685 6 9	
	41,883 9 –	
COUNTY COURTS.—Fees and Fines received under Act 28 & 29 Vict. c. 99 - - - - - - - - - - - - -	517,632 18 1	
CRIMINAL PROSECUTIONS:	£. s. d.	
Fees received on Home and South Eastern Circuits	1 11 –	
" " in Central Criminal Court - -	21 – –	
	22 11 –	
FOREIGN OFFICE:		
Passport Fees - - - - - - - -	647 2 –	
Slave Trade Fees - - - - - - - -	5 – –	
	652 2 –	
HIGH COURT OF JUSTICE:		
CHANCERY DIVISION:		
Lunacy Percentage Account, Fees - - -	8,015 – –	
Taxation Account, Fees - - - - -	11,574 13 –	
	19,589 13 –	
QUEEN'S BENCH, &c. DIVISIONS:		
Middlesex Registry Office - - - - -	- -	5,523 2 3
HOME OFFICE:		
Fees (including Fees on Irish Instruments) - -	1,855 8 6	
Fines under Factory and Workshops Act - -	1,206 12 4	
" " Coal Mines Inspection Act - -	529 11 1	
" " Explosive Substances Act - - -	147 5 –	
Fee paid for unclaimed Certificate of Service under Coal Mines Regulation Act - - -	– 5 –	
	3,739 1 11	
HOUSE OF COMMONS.—Under Act 12 & 13 Vict. c. 72 - -	32,135 5 4	
HOUSE OF LORDS:		
Clerk of the Parliaments - - - - -	8,870 – 1	
Bill and Bar Fees - - - - - - -	18,501 5 6	
	27,371 5 7	
LAW CHARGES.—Fees received by Attorney and Solicitor General -	1,337 5 10	
LUNACY COMMISSION.—Fees on Licenses granted under 8 & 9 Vict. c. 100, &c. - - - - - - - - - - - -	1,425 8 1	
Carried forward - - - £.	663,082 6 5	989,117 13 –

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.
Brought forward - - -	663,082 6 5	989,117 13 –
FEES, &c. OF PUBLIC OFFICES—*continued.*		
ENGLAND—*continued.*		
METROPOLITAN POLICE COURTS.—Fines, &c., under 2 & 3 Vict. c. 71, &c. - - - - - - - - - - - - -	10,008 18 10	
PATENT OFFICE:	£. s. d.	
Trade Marks Registry - - - - - - -	7,472 2 –	
Registry of Designs - - - - - - -	5,042 14 –	
	12,514 16 –	
POLICE COURTS, CHATHAM AND SHEERNESS.—Fines, &c. - -	108 17 1	
PRIVY COUNCIL OFFICE.—Judicial Fees - - - - - -	1,348 12 –	
PUBLIC WORKS LOAN COMMISSIONERS.—Fees paid by Borrowers -	7,244 16 6	
QUEEN'S HOUSEHOLD.—Fees of Honour - - - - - -	34 4 –	
REGISTRAR OF FRIENDLY SOCIETIES - - - - - - -	637 11 –	
REGISTRAR GENERAL.—Under Acts 6 & 7 Will. 4, c. 86, &c. - -	4,125 3 6	
SCIENCE AND ART DEPARTMENT - - - - - - - -	4,543 15 2	
TOWER OF LONDON.—Jewel House - - - - - - -	2,886 8 –	
UNIVERSITY OF LONDON - - - - - - - - -	4,469 7 1	
TOTAL, ENGLAND - - - £.	711,004 15 7	
SCOTLAND:		
COURTS OF LAW AND JUSTICE:	£. s. d.	
Commissary Clerk, Edinburgh, Act 4 Geo. 4, c. 97	2,457 13 –	
Commissary Clerks of Counties, Act 21 & 22 Vict. c. 56 - - - - - - - - - -	2,608 6 6	
Deputy Keeper of the Great Seal - - - - -	3 1 2	
Office of Woods, &c. (Department of Law Agent in Scotland) - - - - - - - - -	155 14 10	
Sheriff Clerk of Chancery - - - - - - -	839 16 8	
Sheriff Clerks, under Act 1 & 2 Vict. c. 119 - -	14,146 19 4	
EXCHEQUER AND OTHER OFFICES:		
Lyon King of Arms - - - - - - - -	443 19 7	
Queen's and Lord Treasurer's Remembrancer, under Act 6 Anne, c. 26 - - - - - - - -	218 2 3	
FISHERY BOARD.—For Brands on Herring Barrels, under 21 & 22 Vict. c. 69 - - - - - - -	4,217 9 1	
LUNACY COMMISSION - - - - - - - -	417 4 3	
REGISTER HOUSE DEPARTMENTS.—Clerk for the Admission of Notaries, Act 57 Geo. 3, c. 64 - -	187 – –	
REGISTRAR GENERAL.—Under Act 17 & 18 Vict. c. 80 - - - - - - - - - - -	284 5 1	
TOTAL, SCOTLAND - - - £.	25,979 11 9	
Carried forward - - - £.	736,984 7 4	989,117 13 –

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward - - -		736,984 7 4	989,117 13 –
FEES, &c. of PUBLIC OFFICES—*continued.*			
IRELAND:	£. s. d.		
BANKRUPTCY COURT - - - - - - -	993 9 9		
CHANCERY COURT.—Patents.—Fees formerly payable to Lord Chancellor under Act 2 & 3 Will. 4, c. 116 - -	6 – 3		
Ditto payable to Lord Chancellor's Secretary - - - - - -	22 16 9		
	28 17 –		
CHIEF SECRETARY'S OFFICE:			
Fees received by the Deputy Keeper of the Privy Seal - - - - -	248 14 6		
Fees on Licenses to Private Lunatic Asylums - - - - - -	204 10 –		
	453 4 6		
COMMON LAW COURTS.—Court of Errors - - -	6 2 1		
CONSOLIDATED FUND.—Annuities payable under Act 6 & 7 Vict. c. 78, viz.:			
From the "County Fines and Penalties Account" (Nine months to 10 October 1876) - - - - -	£. s. d. 375 – –		
From the "County Treasurers' Fee Fund" (Year to 5 January 1877) -	500 – –		
	875 – –		
DUBLIN METROPOLITAN POLICE OFFICE.—Fees, Fines, and Penalties - - - - - - -	6,766 5 8		
HOUSEHOLD OF THE LORD LIEUTENANT:	£. s. d.		
Ulster King of Arms - - -	1,010 – –		
Installation Fees of Knights of the Order of St. Patrick - - -	300 – –		
	1,310 – –		
LANDED ESTATES COURT.—Duties received under Acts 21 & 22 Vict. c. 72, &c. - - - - - -	4,936 8 10		
PUBLIC EDUCATION OFFICE.—Balance of Fees received after supplementing Salaries of Model School Teachers - - - - - - -	1,801 15 5		
PUBLIC RECORD OFFICE - - - - - - -	684 4 –		
QUEEN'S COLLEGES - - - - - - -	6,784 3 –		
QUEEN'S UNIVERSITY - - - - - - -	815 10 –		
REGISTRAR GENERAL - - - - - - -	39 8 –		
VALUATION, COMMISSIONER OF.—Under Act 23 Vict. c. 4 - - - - - - - - - -	439 10 6		
TOTAL, IRELAND - - - £.		25,933 18 9	
TOTAL FEES, &c. - - - £.			762,918 6 1
Carried forward - - - £.			1,752,035 19 1

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

			£. s. d.
Brought forward - - -			1,752,035 19 1
RECEIPTS BY NAVAL AND MILITARY DEPARTMENTS, viz.:			
	Army.	Navy.	
Contributions in aid of Military and Naval Expenditure, viz.:	£. s. d.	£. s. d.	
From Indian Revenues (*see also* below) - -	- -	65,817 15 4	
From Colonial Governments - - - - -	218,563 10 -	—	
For repayments for Stores supplied, Sale of old Stores, and other Extra Receipts - - - - -	328,279 10 4	289,874 16 3	
£.	546,843 - 4	355,692 11 7	902,535 11 11
MAGEE INDEMNITY:			
Proportion of Indemnity paid by Government of Guatemala for Outrage committed on Mr. Magee in April 1874 - - - - - - - - - - - - -			4,233 9 10
CONTRIBUTIONS FROM INDIAN REVENUES:		£. s. d.	
Contributions for Military Charges in respect of Her Majesty's British Forces serving or having served in India, viz.:			
Effective Charges (Depôt and other Home Charges) - - - - - - -	£. s. d. 400,000 - -		
Non-effective Charges - - - - -	368,329 19 9		
Capitalization of Pensions - - - -	100,000 - -		
		868,329 19 9	
Contributions for Expenses of Diplomatic and Consular Services, viz.: Towards Expenses of Persian Mission - - - - - - -		12,000 - -	
Moiety of the Annuity granted to the Red Sea and India Telegraph Company, and of One Year's Charge for Management of the same, per 25 & 26 Vict. c. 39 - - - - - - - - - -		18,027 - -	
			898,356 19 9
ASHANTEE EXPEDITION:			
Receipt in respect of Indemnity - - - - - - - -		177 15 1	
Proceeds of Sale of Stores purchased for Captain Glover's Expedition		506 14 9	
Proceeds of Sale of Stores, &c. pertaining to Gold Coast "*ex* Gertrude" - - - - - - - - - - - -		195 6 10	
Refund of overpayment on board H.M.S. "Duke of Wellington" -		4 - -	
			883 16 8
ARMY PURCHASE COMMISSION:			
Awards paid from Indian Revenues on account of Compensation to Officers who had already received from the Army Purchase Commissioners the full amount of bonus to which they were entitled -		1,875 7 4	
Balance of Funds of Royal (late Indian) Ordnance Corps received under 37 & 38 Vict. c. 61 - - - - - - - - -		22,596 16 8	
			24,472 4 -
RECEIPTS BY CIVIL DEPARTMENTS (other than Fees):			
BOARD OF TRADE:			
Amount received in respect of the rights and interests of the Crown in the Foreshores of the United Kingdom, per 29 & 30 Vict. c. 62 - - - - - -	£. s. d. 500 13 -		
Wages and Effects of deceased Merchant Seamen remaining unclaimed for six years, per 17 & 18 Vict. c. 104, s. 202, with interest thereon	£. s. d. 9,651 1 -		
Contributions from Masters and Seamen towards their Pensions, per Act 16 & 17 Vict. c. 131, s. 28 - -	378 2 9		
	10,029 3 9		
Carried forward - - - £.	10,529 16 9	- -	3,582,518 1 3

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward - - -	10,529 16 9	- -	3,582,518 1 3
RECEIPTS BY CIVIL DEPARTMENTS—*conta.*			
BOARD OF TRADE—*continued.*			
Repayment of Expenses incurred for Merchant Seamen by Owners of Vessels, &c. - - - -	110 8 8		
Relief of Distressed British Seamen; Expenses recovered from Colonial Governments on account of	1,287 11 –		
Balance of unclaimed Wages of Distressed British Seamen for 1874–75 - - - - - - -	324 15 2		
Receipt from Lloyd's for Services performed at Registry of Seamen - - - - - - -	100 – –		
Other Small Receipts - - - - - - -	28 – 1		
		12,380 11 8	
BROADMOOR CRIMINAL LUNATIC ASYLUM.—Extra Receipts, including Profit on Farm - - - - - - - - - -		7,786 10 1	
BRITISH MUSEUM.—Sale of Publications, &c. - - - - -		765 14 5	
CHARITABLE DONATIONS AND BEQUESTS OFFICE, IRELAND:			
Dividend on 1,397*l.* 15*s.* New Three per Cent. Stock - - - - - - - - -	£. s. d. 41 18 4		
Other Extra Receipts - - - - - - -	4 12 6		
		46 10 10	
CHARITY COMMISSION - - - - - - - - - -		93 10 4	
CIVIL SERVICE COMMISSION - - - - - - - - -		– 14 6	
COLONIAL OFFICE.—Principal and Interest of Widows' and Orphans' Fund, St. Helena - - - - - - - - - -		56 – –	
COLONIES, GRANTS IN AID.—Repayment by Lagos of second moiety of 20,000*l.* voted in 1872–3 - - - - - - - -		10,000 – –	
CONSCIENCE MONEY:	£. s. d.		
Remitted to Chancellor of the Exchequer - -	14,823 4 3		
Remitted to Paymaster General in Ireland - -	12 – –		
		14,835 4 3	
CONSTABULARY, IRELAND.—Receipts by the Receiver and Inspector General in repayment of cost of Extra Forces in Counties, &c. -		28,935 6 1	
CONVICT ESTABLISHMENTS, ENGLAND AND THE COLONIES:			
Prisons in England:	£. s. d.	£. s. d.	
On account of the Productive Labour of Convicts, &c., viz.:			
Profits on Farms - - -	1,772 5 10		
Manufacturing Department -	13,378 14 9		
		15,151 – 7	
Proceeds of Sale of Old Stores, and other Receipts -		1,395 7 9	
Prisons in the Colonies:			
For Maintenance of Prisoners, Lunatics, and Paupers, on behalf of Colonial Governments - - -		2,049 7 11	
Repayment of Cost of Provisions and Stores supplied to Colonial Governments and private individuals -		2,428 17 –	
Sale of Old Stores, Rents, and other Receipts - -		1,271 15 3	
		22,296 8 6	
Carried forward - - - £.		97,196 10 8	3,582,518 1 3

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward		97,196 10 8	3,582,518 1 3
RECEIPTS BY CIVIL DEPARTMENTS—*continued.*			
COPYHOLD, INCLOSURE, AND TITHE COMMISSION:			
For Extracts, &c.; also for Surveys and other expenses incurred on behalf of Applicants for the Registration of Land, per Act 25 & 26 Vict. c. 53	2,837 19 –		
In repayment of Inclosure Expenses, under Act 8 & 9 Vict. c. 118	3,260 3 9		
In repayment of Drainage Expenses, under Act 9 & 10 Vict. c. 101, &c.	4,127 15 6		
		10,225 18 3	
COUNTY COURTS:			
Forfeited Suitors' Money	1,151 10 11		
Bank Interest	266 6 6		
Gazette Advertisements	13 – –		
Law Charges	71 9 –		
		1,502 6 5	
COURTS OF LAW AND JUSTICE, SCOTLAND.—Legal Expenses Recovered		26 1 6	
DUBLIN METROPOLITAN POLICE OFFICE:	£. s. d.		
Police Tax	30,961 2 4		
Carriage Revenue	4,840 11 –		
Pawnbroker's License Duty	5,907 14 8		
Publicans' Fees	497 – –		
Incidental Income	3,422 3 1		
		45,628 11 1	
EDUCATION OFFICE, ENGLAND:			
Repayment of Annual Grants of former Years	61 2 9		
Repayment of Cost of Training by a Student	20 – –		
Repayment of Cost Inspecting Schools in the Isle of Man	178 11 –		
Repayment of Cost Inspecting Schools in the Isle of Jersey	79 17 3		
Repayment of Cost of Indentures of Pupil Teachers, &c.	64 2 –		
		403 13 –	
EDUCATION OFFICE, SCOTLAND.—Excess in Repayment		– – 6	
EDUCATION OFFICE, IRELAND:	£. s. d.		
Sale of School Books, &c.	29,208 15 7		
Proceeds of Sale of Model Farms	7,879 16 1		
		37,088 11 8	
EMIGRATION COMMISSION.—Forfeited Deposits of Emigrants, &c.		1 8 –	
EXCHEQUER AND AUDIT DEPARTMENT:	£. s. d.		
Receipts in respect of Auditing certain Accounts, viz.:			
Greenwich Hospital	100 – –		
Irish Church Temporalities Commission	819 – 8		
Mercantile Marine Fund	1,400 – –		
		2,319 – 8	
FISHERY BOARD, SCOTLAND.—Sale of Stores		22 16 3	
Carried forward £.		194,414 18 –	3,582,518 1 3

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward - - -		194,414 18 –	3,582,518 1 3
RECEIPTS BY CIVIL DEPARTMENTS—*continued.*			
FOREIGN OFFICE:			
Sale of Horses at Tehran - - - - - - -	1 4 –		
Sale of Old Stores - - - - - - - -	44 12 9		
Interest from Bank at Lisbon - - - - - -	– 9 11		
Contribution of Canadian Government towards Expense of North American Boundary Commission -	27,478 16 1		
Contribution of Canadian Government of half Expenses of American Fisheries Commission in 1873–4 and 1874–5 - - - - - - - - - -	2,323 7 8		
		29,848 10 5	
HARBOURS OF REFUGE:			
Rent of Property, Pier Dues, &c. - - - - -	3,832 8 3		
St. Catherine's Harbour, Jersey, Rent of Land - -	600 – –		
		4,432 8 3	
HIGH COURT OF JUSTICE:			
CHANCERY DIVISION:			
Brokerage on purchase and sale of Investments -	11,316 12 8		
Per-centage under Winding-up Acts - - - -	163 12 1		
		11,480 4 9	
PROBATE AND DIVORCE REGISTRIES - - - - - - -		– 10 –	
QUEEN'S BENCH DIVISION.—Sale of Printed Cause Lists - -		4 8 –	
HOME OFFICE:			
Repayment by County of Sussex of Expenses incurred in respect of Christiana Edmunds - - - -	52 10 –		
Repayment of Expenses incurred under Explosives Act - - - - - - - - - -	10 11 –		
		63 4 –	
HOUSE OF COMMONS.—Proceeds of Sale of Parliamentary Papers -		3,934 8 –	
LAW CHARGES, ENGLAND.—Costs, &c. recovered by Solicitor to Treasury - - - - - - - - - - - - - -		5,853 10 11	
LIGHTHOUSES ABROAD:			
Sale of damaged Stores - - - - - - -	90 – 1		
Amount recovered from Stationery Office for Printing, charged to Vote for 1875–6 - - - - - -	4 15 –		
		94 15 1	
LAND REGISTRY OFFICE.—Extra Receipts - - - - - -		6 17 3	
LOCAL GOVERNMENT BOARD, ENGLAND:			
Travelling Expenses, &c., of Engineering Inspectors recovered from Local Authorities - - - - - - - - -		3,582 12 7	
LOCAL GOVERNMENT BOARD, IRELAND.—Sums recovered in respect of Salaries of Auditors of Poor Law Unions, &c. - - - - -		1,265 16 6	
MINT:			
Seignorage on Silver purchased for Coinage - -	25,995 14 –		
Profit on Bronze Coinage - - - - - -	46,951 19 5		
Gold Sweep - - - - - - - - - -	1,403 6 3		
Repayment of Expenses of Coinage and specimen Dies for Colonial and Foreign Governments, &c. -	404 9 3		
Other Receipts (including Rent of Refinery) - -	570 10 –		
		75,325 18 11	
Carried forward - - - £.		330,308 [redacted] 8	3,582,518 1 3

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward		330,308 2 8	3,582,518 1 3
RECEIPTS BY CIVIL DEPARTMENTS—*continued.*			
NATIONAL DEBT OFFICE.—Extra Receipts		19 19 –	
NATIONAL GALLERY, IRELAND.—Sale of Catalogues		49 – 4	
OFFICE OF WORKS:			
Rents, Westminster Bridge Estate, Grazing Rents, Sale of Materials, &c.	50,852 10 3		
Rent for use of the Slope of Conway Bridge Embankment	128 18 4		
Excess of Poor and Police Rates in Parishes of St. Margaret and St. John, Westminster, received in respect of Mortgage vested in Office of Works, under Acts 10 & 11 Vict. c. 131, and 16 Vict. c. 18	586 3 8		
		51,567 12 3	
OFFICE OF PUBLIC WORKS, IRELAND:			
Rent of Public Buildings, Grazing Rents, Tolls, Proceeds of Sale of old Materials, &c.	3,742 19 11		
Law Costs recovered	2 7 9		
		3,745 7 8	
PAYMASTER GENERAL'S OFFICE:			
Interest on Exchequer Bills—Deposit Funds	17,607 8 6		
Gain by Exchange in Hanover	3 19 5		
Repayment of Pension over-issued	80 6 6		
		17,691 14 5	
PRISONS, SCOTLAND:			
On account of Productive Labour of Convicts	3,669 13 9		
Money found at Uphall	1 – –		
		3,670 13 9	
PRISONS, IRELAND.—On account of Productive Labour of Convicts		2,128 17 11	
PRIVY COUNCIL OFFICE.—Copies of Documents		6 15 –	
REFORMATORY SCHOOLS, GREAT BRITAIN:			
Parental Contributions for Maintenance of Children	21,325 11 10		
Costs recovered	1 2 –		
		21,326 13 10	
REFORMATORY SCHOOLS, IRELAND.—Parental Contributions for Maintenance of Children		1,269 10 4	
REGISTER HOUSE DEPARTMENTS, EDINBURGH.—Postages recovered		– 12 1	
SCIENCE AND ART DEPARTMENT.—Rent of Refreshment Rooms, Sale of Catalogues, Examples, &c.		372 17 2	
STATIONERY OFFICE.—Sale of Publications, Waste, Per-centage on Supplies to Indian Government, &c.		27,847 1 2	
TREASURY.—Conscience Money (*see* above):			
Refund by Post Office of a Sum paid for Rates	456 14 5		
Philadelphia Exhibition:			
Sale of Banners	25 – –		
Repayment by American Government of share of Wages	15 4 8		
Per-centage on Washington Claims	9,895 16 3		
		10,392 15 4	
VALUATION OFFICE, IRELAND.—Repayments by Counties, &c. (37 & 38 Vict. c. 70)		10,608 9 6	
OTHER RECEIPTS.—Interest on Public Balances deposited in Banks in Scotland		527 14 1	
			481,533 16 6
Carried forward		£.	4,064,051 17 9

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£. s. d.	£. s. d.	£. s. d.
Brought forward - - -			4,064,051 17 9
RECEIPTS BY REVENUE DEPARTMENTS, &c. (Miscellaneous):			
CUSTOMS:			
Rent of Crown Premises and of Goods deposited in Bonded Warehouses	7,699 1 6		
Proceeds, less Duty, of Goods sold for Customs Duties	8,430 6 9		
Monies received from Board of Trade in reimbursement of Charges incurred under Merchant Shipping Act	15,304 6 6		
Receipts from Merchants for special attendance of Officers	18,025 13 9		
Fines, Forfeitures, and other Miscellaneous Receipts	6,584 13 2		
Proceeds of Sales of Stores	119 3 3		
Fees received under Merchant Shipping Act	328 2 10		
		56,491 7 9	
INLAND REVENUE:			
Fines, Seizures, and Penalties	36,599 13 9		
Rents	4,851 18 6		
Interest on Malt Duty deferred	8,628 1 –		
Other Miscellaneous Receipts	1,947 10 8		
		52,027 3 11	
POST OFFICE:			
Amount received from National Debt Commissioners on account of Charges of Management of Post Office Savings Banks and Government Annuities and Insurances	161,228 7 1		
Stamp Poundage	1,046 9 2		
Rents of Metropolitan and Provincial Offices, and other Miscellaneous Receipts	15,639 8 9		
Void Money Orders	5,472 11 2		
		183,386 16 2	
TELEGRAPH SERVICE:			
Rent of portions of Telegraph Offices	5,295 2 9		
Sale of Stores	1,529 8 2		
Repayment of Cost of Works executed for Railway Companies and others	2,814 12 6		
Miscellaneous Receipts	2,095 1 5		
		11,734 4 10	
PACKET SERVICE:			
Amount received from—			
Indian Revenues, on account of the Mail Service	46,170 – –		
Holyhead and Kingstown Packet Service	6,286 15 9		
Packet Establishment, Dover	1 – –		
		52,457 15 9	
			356,097 8 5
Carried forward - - - £.			4,420,149 6 2

DETAILED STATEMENT of Miscellaneous Revenue—*continued.*

	£.	s.	d.	£.	s.	d.
Brought forward - - -				4,420,149	6	2
INCOME OF GAZETTES:						
Gross Revenue (in part*) of the London Gazette - - -	1,719	15	–			
Gross Revenue of the Edinburgh Gazette - - - -	3,375	5	6			
Ditto - - Dublin Gazette - - - - -	1,114	8	6			
				6,209	9	–
SAVINGS ON GRANTS OF PARLIAMENT, AND OVER-ISSUES REPAID:						
Ashantee War—Surplus Balances of Vote of Credit, 1874–75 -	12,196	17	7			
Unexpended Cash Balances of Grants of Parliament; and sundry Savings and Repayments on account of Issues out of the Consolidated Fund, &c. - - - - - - - -	7,745	12	8			
Unexpended Balance of "Grant Fund," 1 & 2 Will. 4, c. 33 -	361	3	11			
Ditto - - - "Grants for Piers," 9 Vict. c. 3, &c. -	35	5	6			
				20,338	19	8
TREASURY CHEST:						
Profit on Treasury Chest Transactions for 1874–75 - - - - - - -				15,804	19	11
ISLE OF MAN:						
Amount of Contribution received from the Customs Revenue of the Isle of Man, for the year 1875–76, less Interest of the Port Erin Loans, per Act 29 Vict. c. 23 - - - - - - -	8,400	–	–			
Repayments of Expenditure defrayed out of Votes on account of the following Services in the Island, viz.:						
Army (Volunteer Expenses), year 1875–76 - £. 332 2 11						
Public Works - - - - - „ - 496 – 8						
	828	3	7			
				9,228	3	7
GREEK LOAN:						
Proceeds of Bills remitted by the Greek Government on account of Interest and Sinking Fund of the Greek Loan (being the stipulated Annuities for 1874 and 1875) - - - - - - - - - - - - - - - -				15,833	7	–
CASUAL RECEIPTS:						
Proceeds of Anglo-French Bonds belonging to unrepresented British Subjects at "Monte Video" - - - - - - -	130	14	5			
Rents of Guano Islands, Malden (495 *l.* 19 *s.*), Bird (200 *l.*), Sombrero (500 *l.*), Caroline (25 *l.*), Flint (25 *l.*), Bramble Cay (198 *l.* 5 *s.*) - - - - - - - - - -	1,444	4	–			
Sum received from Committee for care, &c., of Linen and Yarn Halls, Dublin, in respect of Rents, since 1872 (9 Geo. 4, c. 62, s. 37) - - - - - - - - - - - - -	250	–	–			
Recovery, in further part, of defalcations at the Callao Consulate	4	–	–			
Rent of Inn at Beattock - - - - - - - - - -	82	13	9			
Premium and Interest on Exchequer Bills issued in lieu of Bills paid off in money, and paid in for duties during the year -	560	2	7			
				2,471	14	9
TOTAL - - - £.				4,490,036	–	1

* Since 1st July 1871, the greater part of the revenue of the London Gazette has been collected in stamps.

REFERENCES TO DETAILS

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INTEREST AND MANAGEMENT OF DEBT AND TERMINABLE ANNUITIES.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for Payment of Interest of the PUBLIC FUNDED DEBT, Management of the FUNDED and UNFUNDED DEBT, and TERMINABLE ANNUITIES.

	AMOUNTS ISSUED FOR PAYMENT.	
INTEREST OF FUNDED DEBT.	£. s. d.	£. s. d.
Great Britain:		
£.3 per Cent. Consolidated Annuities	11,671,030 16 9	
£.3 per Cent. Reduced Annuities	2,828,179 17 3	
New £.3 per Cent. Annuities	5,392,797 12 5	
New £.3 10. per Cent. Annuities	7,901 2 4	
New £.2 10. per Cent. Annuities	94,466 4 11	
Exchequer Bonds of 1853,—16 Vict. c. 23	10,457 10 –	
		20,004,833 3 8
Ireland:		
£.3 per Cent. Consolidated Annuities	156,225 19 –	
£.3 per Cent. Reduced Annuities	4,104 19 7	
New £.3 per Cent. Annuities	807,115 13 11	
New £.2 10. per Cent. Annuities	58 5 –	
		967,504 17 6
Interest of the Government Debt to the Bank of England, viz.:		
Original Capital: £. s. d.		20,972,338 1 2
1694: Act 5 & 6 Will. & Mary, c. 20 - 1,200,000 – –		
1708: Act 7 Anne, c. 7 - - - 400,000 – –		
1742: Act 15 Geo. 2, c. 13 - - 1,600,000 – –		
	3,200,000 – –	
Capital purchased of the South Sea Company:		
1721: Act 8 Geo. 1, c. 21, Residue of Capital of £.4,000,000 purchased of the South Sea Company - -	3,328,300 – –	
Other Advances to Government:		
1716: Act 3 Geo. 1, c. 8, Balance of £.2,000,000 of Exchequer Bills cancelled - - - - -	500,000 – –	
1727: 1 Geo. 2, c. 8, Advance to Government - - -	1,750,000 – –	
1728: 2 Geo. 2, c. 3 - - ditto - - - - -	1,250,000 – –	
1746: 19 Geo. 2, c. 6, Exchequer Bills delivered up to be cancelled - - - - - - - - -	986,800 – –	
TOTAL, bearing Interest at £.3 per cent. per annum - £.	11,015,100 – –	330,453 – –
Interest of the Government Debt to the Bank of Ireland, viz.: £.		
1783: Act 21 & 22 Geo. 3, c. 16 - (Irish Currency, 600,000)	553,846 3 1	
1797: Act 37 Geo. 3, c. 50 - - { ditto - 500,000)	461,538 9 3	
1808: Act 48 Geo. 3, c. 183 - { ditto - 1,250,000)	1,153,846 3 1	
1821: Act 2 Geo. 4, c. 72 - - { ditto - 500,000)	461,538 9 3	
TOTAL, bearing Interest at £.3 per cent. per annum - £.	2,630,769 4 8	78,923 1 6
		21,381,714 2 8
MANAGEMENT [*see* page 84 for further particulars.]		
MANAGEMENT of Funded Debt for one Year, ended 5th April 1876, on the Capital of the Unredeemed Debt, as it stood on the 5th April 1875, viz.:		
Bank of England, per Act 24 Vict. c. 3 - - - -	196,606 11 5	
Bank of Ireland, per Act 28 Vict. c. 16 - - - -	10,013 18 9	
MANAGEMENT (by the Bank of England) of the Unfunded Debt in Exchequer Bills, for one Year to 30th November 1876, per Act 29 & 30 Vict. c. 25 - - - - -	647 3 7	
		207,267 13 9
Carried forward - - - £.		21,588,981 16 5

DETAILED STATEMENT of Amount issued for Interest of the Funded Debt, &c.—*cont.*

		AMOUNTS ISSUED FOR PAYMENT.	
		£. s. d.	£. s. d.
Brought forward - - -		- - -	21,588,981 16 5
TERMINABLE ANNUITIES.	£. s. d.		
Life Annuities, per Acts 10 G. 4, c. 24, 3 W. 4, c. 14, and 16 & 17 V. c. 45 - - - - -	896,481 18 -		
Exchequer Annuities, under various Acts -	12,059 2 -		
		908,541 - -	
Annuities for Terms of Years, viz.:			
Per Acts 10 G. 4, c. 24, 3 W. 4, c. 14, and 16 & 17 V. c. 45 - - - - - -	- -	38,145 7 9	
Per Act 18 V. c. 18, expiring 5th April 1885	116,000 - -		
Per Acts 23 & 24 V. c. 109; 25 & 26 V. c. 78, 26 & 27 V. c. 80; 27 & 28 V. c. 109; 28 & 29 V. c. 61; 30 & 31 V. c. 145, and 32 & 33 V. c. 76 (Fortifications), expiring 5th April 1885 - - - - - -	575,291 - -		
Per Act 35 & 36 V. c. 68 (Military Barracks): £. s. d.			
Expiring 29 March 1885 - 6,091 - -			
„ 1 August „ - 59,395 - -			
	65,485 - -		
Per Act 26 V. c. 14 (Post Office Savings Banks), expiring 5 April 1885 - - -	9,983 7 2		
Per Acts 29 V. c. 5, and 32 & 33 V. c. 59 (Post Office Savings Banks): £. s. d.			
Expiring 1 March 1885 - 200,000 - -			
„ 15 „ „ - 200,000 - -			
„ 1 May „ - 101,681 - -			
„ 15 „ „ - 100,000 - -			
„ 8 June „ - 165,287 - -			
„ 8 „ „ - 53,887 - -			
„ 1 August „ - 200,000 - -			
„ 1 September „ - 200,000 - -			
„ 1 November „ - 150,000 - -			
	1,370,855 - -		
Per Act 32 & 33 V. c. 59 (Savings Banks):			
Expiring 22 January 1885 - 200,000 - -			
„ 8 February „ - 300,000 - -			
„ 22 „ „ - 400,000 - -			
„ 8 March „ - 400,000 - -			
„ 22 „ „ - 300,000 - -			
„ 8 May „ - 300,000 - -			
„ 22 „ „ - 300,000 - -			
„ 8 June „ - 46,990 - -			
	2,246,990 - -		
		4,384,605 7 2	
Sinking Fund Annuity (2½ per Cent.) per 16 V. c. 23, expiring 1894 - - - - - - - - - -		6,906 14 7	
Per Act 25 & 26 V. c. 39 (Red Sea and India Telegraph Co.), expiring 4 August 1908 - - - - - - - - -		36,000 - -	
			5,374,198 9 6
TOTAL AMOUNT issued for INTEREST of FUNDED DEBT, &c. and for TERMINABLE ANNUITIES - - - - -		- - - £.	26,963,180 5 11

Estimated Charge of the above for the Year 1877-78, £. 27,032,036.]

INTEREST OF EXCHEQUER BILLS, &c.

DETAILED STATEMENT of the AMOUNT Issued from the Exchequer in the Year ended 31st March 1877, for Payment of Interest of EXCHEQUER BILLS, &c.

	£. s. d.	AMOUNTS Issued for Payment. £. s. d.
Interest of Exchequer Bills, per Act 29 & 30 V. c. 25		103,912 1 –
Interest on amounts advanced by the Bank of England in aid of Ways and Means		—
Interest of amounts advanced by the Bank of England, on account of the deficiency of the Income of the Consolidated Fund in the following Quarters (per Act 29 & 30 V. c. 39), viz.:		
Quarter ended 31 March 1876	—	
„ 30 June „	1,665 14 9	
„ 30 Sept. „	3,489 – 3	
„ 31 Dec. „	2,972 11 6	
		8,127 6 6
TOTAL AMOUNT issued for INTEREST of EXCHEQUER BILLS, &c.	£.	112,039 7 6

[*Estimated Charge of the above for the Year 1877–78*, £.95,000.]

NEW SINKING FUND.

DETAILED STATEMENT of the AMOUNT issued from the Exchequer in the Year ended 31st March 1877, in respect of the NEW SINKING FUND.

	AMOUNTS Issued for Payment. £. s. d.
Amount issued to the National Debt Commissioners under the Act 38 & 39 V. c. 45, to be applied to the Reduction of Debt (for application, *see* page 77)	624,780 6 7

[*Estimated Charge of the above for the Year 1877–78*, £. 872,964.]

INTEREST ON LOANS FOR LOCAL PURPOSES.

DETAILED STATEMENT of the AMOUNT Issued from the Exchequer in the Year ended 31st March 1877, for Payment of INTEREST on LOANS raised for Local Purposes.

	£. s. d.	AMOUNTS Issued for Payment. £. s. d.
Amount issued for Interest at 3½ per cent. per annum on the following Exchequer Bonds, viz.:		
Series U. for 1,000,000 *l.*, dated 24th March 1875	35,000 – –	
„ V. for 250,000 *l.*, dated 3rd August 1875	8,750 – –	
„ W. for 250,000 *l.*, dated 7th September 1875	8,750 – –	
„ X. for 250,000 *l.*, dated 5th October 1875	8,750 – –	
„ Y. for 250,000 *l.*, dated 3rd November 1875	8,750 – –	
„ Z. for 250,000 *l.*, dated 3rd November 1875	8,750 – –	
„ A. for 250,000 *l.*, dated 5th January 1876	8,750 – –	
„ B. for 500,000 *l.*, dated 28th March 1876	17,500 – –	
„ C. for 200,000 *l.*, dated 30th March 1876	7,000 – –	
„ D. for 500,000 *l.*, dated 29th June 1876 (for half-a-year)	8,750 – –	
„ E. for 500,000 *l.*, dated 29th September 1876 (for half-a-year)	8,750 – –	
		129,500 – –
Amount issued for prepaid Interest (at rates equivalent to an average of 1 *l.* 14 *s.* 10 *d.* per cent. per annum) on Treasury Bills payable at three months after date		7,142 13 9
Amount issued for prepaid Interest (at rates equivalent to an average of 2 *l.* 4 *s.* 9 *d.* per cent. per annum) on Treasury Bills payable at six months after date		6,278 10 10
TOTAL AMOUNT issued for INTEREST on LOCAL LOANS £.		142,921 4 7

[*Estimated Charge of the above for the Year 1877-78*, £.220,000.]

INTEREST, &c., ON EXCHEQUER BONDS (SUEZ).

DETAILED STATEMENT of the AMOUNT issued from the Exchequer in the Year ended 31st March 1877, for INTEREST and PRINCIPAL of Exchequer Bonds (Suez).

	AMOUNTS Issued for Payment. £. s. d.
Interest on 4,000,000 *l.* outstanding Exchequer Bonds at 3½ per cent. per annum, per 39 Vict. c. 1, for half-year to 20 September 1876	70,000 – –
Principal of Bond due 29 September 1876	5,000 – –
Interest on 3,995,000 *l.*, outstanding Exchequer Bonds at 3½ per cent. per annum, per 39 Vict. c. 1, for half-year to 20 March 1877	69,912 10 –
Principal of Bond due 20 March 1877	5,000 – –
TOTAL AMOUNT issued for INTEREST, &c. on EXCHEQUER BONDS (SUEZ) £.	149,912 10 –

[*Estimated Charge of the above for the Year 1877-78*, £.200,000.]

CIVIL LIST.

DETAILED STATEMENT of the AMOUNT issued from the Exchequer in the Year ended 31st March 1877, for Payment on account of the CIVIL LIST.

	£. s. d.	AMOUNTS Issued for Payment. £. s. d.
Civil List Charges, as per Schedule to the Act 1 Vict. c. 2:		
Class I. Her Majesty's Privy Purse	60,000 – –	
„ II. Salaries of Her Majesty's Household and Retired Allowances	131,260 – –	
„ III. Expenses of Her Majesty's Household	172,500 – –	
„ IV. Royal Bounty, Alms, and Special Services	13,200 – –	
„ VI. Unappropriated	8,040 – –	
		385,000 – –
„ V. Pensions granted under the above Act (limited to 1,200 *l.*) per annum)		21,709 19 9
TOTAL AMOUNT issued on account of the CIVIL LIST £.		406,709 19 9

[*Estimated Charge of the above for the Year 1877-78*, £. 408,000.]

ANNUITIES AND PENSIONS.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for Payment of ANNUITIES and PENSIONS charged on the CONSOLIDATED FUND.

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
ANNUITIES to the ROYAL FAMILY:			
Her Royal Highness the Princess Royal (Crown Princess of Prussia)	20 & 21 V. c. 2	8,000 – –	
Her Royal Highness Alice Maud Mary (Princess Frederick William Louis of Hesse)	24 V. c. 15	6,000 – –	
His Royal Highness Albert Edward, Prince of Wales	26 V. c. 1	40,000 – –	
Her Royal Highness the Princess of Wales	26 V. c. 1	10,000 – –	
His Royal Highness Alfred Ernest Albert, Duke of Edinburgh	29 V. c. 8 36 & 37 V. c. 80	15,000 – – 10,000 – –	
Her Royal Highness Helena Augusta Victoria (Princess Christian of Schleswig-Holstein-Sonderbourg-Augustenburg)	29 V. c. 7	6,000 – –	
Her Royal Highness Louise Caroline Alberta, Princess Marchioness of Lorne	34 V. c. 1	6,000 – –	
His Royal Highness Arthur William Patrick Albert, Duke of Connaught	34 & 35 V. c. 64	15,000 – –	
His Royal Highness Prince Leopold George Duncan Albert	37 & 38 V. c. 65	15,000 – –	
Her Royal Highness the Duchess of Cambridge	58 G. 3. c. 24 1 G. 4. c. 108	6,000 – –	
Her Royal Highness the Princess Augusta, Duchess of Mecklenburg Strelitz	6 & 7 V. c. 25	3,000 – –	
His Royal Highness the Duke of Cambridge	13 & 14 V. c. 77	12,000 – –	
Her Royal Highness the Princess Mary (Princess of Teck)	13 & 14 V. c. 77 29 & 30 V. c. 48	3,000 – – 2,000 – –	
Carried forward £.			157,000 – –

DETAILED STATEMENT of Amount issued for Annuities and Pensions—*continued.*

To Whom Payable.	Duration of the Grant.	By what Acts Granted.	Amount Issued for Payment. £. s. d.	£. s. d.
Brought forward				157,000 – –
PENSIONS for NAVAL and MILITARY SERVICES:				
Duke of Marlborough	To whom the Title of Duke of Marlborough shall descend	5 A. c. 4 – 19 & 20 V. c. 59	4,000 – –*	
Lord Rodney – Dowager Lady Rodney	To all and every the Heirs male to whom the Title of Lord Rodney shall descend	33 G. 3, c. 77	1,000 – – 1,000 – –	
Earl Morley, in trust for Earl Amherst	To the Representatives of Jeffery, Earl Amherst	43 G. 3, c. 159	3,000 – –	
Viscount St. Vincent	For Life	46 G. 3, c. 50 – 4 G. 4, c. 92	2,000 – – 1,000 – –	
Earl Nelson – Frances Elizabeth, Countess Nelson	To whom the Title of Earl Nelson shall descend	46 G. 3, c. 146	3,500 – – 1,500 – –	
The Duke of Wellington	To the present Duke and his Successor	50 G. 3, c. 8 – 52 G. 3, c. 37	2,000 – – 2,000 – –	
Viscount Combermere	To the present Viscount and next Heir male on whom the Title shall descend	54 G. 3, c. 163	2,000 – –	
Viscount Exmouth, Guardians of	To the Heirs male on whom the Title shall descend	54 G. 3, c. 164	2,000 – –	
Lord Seaton	To the present Baron and next Heir male who may succeed to the Title	3 V. c. 11	2,000 – –	
Lord Keane	To the present Baron and his Successor	4 V. c. 1	2,000 – –	
Lord Hardinge	To the present Viscount and next Heir male who may succeed to the Title	9 & 10 V. c. 31	3,000 – –	
Lord Gough	To the present Viscount and next Heir male who may succeed to the Title	9 & 10 V. c. 32	2,000 – –	
Lord Raglan	To the present Baron and next Heir male who may succeed to the Title	18 & 19 V. c. 64	2,000 – –	
Lady Raglan	For Life	18 & 19 V. c. 64	1,000 – –	
Sir William F. Williams, Bart.	ditto	19 & 20 V. c. 30	1,000 – –	
Sir Henry Marshman Havelock, Bart.	ditto	21 V. c. 2	1,000 – –	
Lady Havelock	ditto		1,000 – –	
Lord Napier of Magdala	To the present Baron and his next surviving Heir male	31 & 32 V. c. 91	2,000 – –	
				42,000 – –
		Carried forward £.		199,000 – –

* Transferred from Gross Revenues in 1854.

DETAILED STATEMENT of Amount issued for Annuities and Pensions—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward			199,000 – –
PENSIONS for POLITICAL and CIVIL SERVICES:			
Viscount Eversley, late Speaker of the House of Commons [For Life]	20 V. c. 9	4,000 – –	
Countess of Elgin and Kincardine, Widow of the late Governor General of India [For Life]	27 & 28 V. c. 31	1,000 – –	
Countess of Mayo - ditto - ditto	35 & 36 V. c. 56	1,000 – –	
First Class (Four, at £. 2,000):			
The Right Hon. Sir George Grey	4 & 5 W. 4, c. 24	2,000 – –	
The Right Hon. the Earl of Beaconsfield (suspended)	4 & 5 W. 4, c. 24	—	
The Right Hon. Thomas Milner Gibson	4 & 5 W. 4, c. 24	2,000 – –	
The Right Hon. Spencer H. Walpole	4 & 5 W. 4, c. 24	2,000 – –	
Third Class.			
Vice Admiral Lord Clarence E. Paget, late First Secretary of the Admiralty	4 & 5 W. 4, c. 24	1,200 – –	
Fourth Class:			
Admiral W. A. B. Hamilton, late Second Secretary of the Admiralty	57 G. 3, c. 65 and 4 & 5 W. 4, c. 24	1,000 – –	
W. G. Romaine, C.B. - ditto	4 & 5 W. 4, c. 24 / 32 & 33 V. c. 60	1,000 – –	
Second Class (under Act of 1869):			
The Right Hon. Charles P. Villiers, late President of the Poor Law Board	32 & 33 V. c. 60	1,200 – –	
The Representatives of Right Hon. Thos. E. Headlam, late Judge Advocate General (1,200 *l.* per annum, less amount of other emoluments, &c.) to 4th December 1875	32 & 33 V. c. 60	93 15 8	
Representatives of Adam Norris, late Officer of Levant Company, 6th April to 13th October 1853	6 G. 4, c. 33	14 4 9	
Glasse, William B., Officer of the late Exchequer in England	4 W. 4, c. 15	108 – –	
Maberly, William L.,* late Commissioner of Audit	29 & 30 V. c. 39	1,200 – –	
Macaulay, Charles Z. „ „	29 & 30 V. c. 39	1,200 – –	
			19,016 – 5
PENSIONS for CIVIL SERVICES (IRELAND):			
Wiliam Johnston - Late Clerks, Military	3 G. 4, c. 56	43 2 8	
Thomas James Quinton - Audit Office, Ire-	3 G. 4, c. 56	55 – –	
Robert Douglas - land	3 G. 4, c. 56	32 6 –	
			130 8 8
Carried forward £.			218,146 9 1

* In addition to a Superannuation Allowance of 533 *l.* 6 *s.* 8 *d.* per annum, as late Secretary to the Post Office.

DETAILED STATEMENT of Amount issued for Annuities and Pensions– *continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			218,146 9 1
PENSIONS for JUDICIAL SERVICES (GREAT BRITAIN): *			
Lord Chelmsford, late Lord Chancellor		5,000 – –	
Lord Cairns – – – ditto – (suspended)	2 & 3 W. 4, c. 111	—	
Lord Hatherley – – – ditto		5,000 – –	
Lord Selborne – – – ditto		5,000 – –	
The Right Hon. Sir William Erle, late Lord Chief Justice of the Common Pleas	53 G. 3, c. 153 – 6 G. 4, c. 83 – 6 G. 4, c. 84 –	3,750 – –	
The Representatives of Right Hon. Sir John Taylor Coleridge, late Puisne Judge, Queen's Bench (to 11 February 1876)		355 15 4	
The Right Hon. Sir Samuel Martin, late Baron, Court of Exchequer		3,500 – –	
The Right Hon. Sir John B. Byles, late Puisne Judge, Common Pleas	53 G. 3, c. 153 – 6 G. 4, c. 83 – 6 G. 4, c. 84 –	3,500 – –	
The Right Hon. Sir Henry S. Keating, late Puisne Judge, Common Pleas		3,500 – –	
The Right Hon. Lord Penzance, late Judge of the Court of Probate	20 & 21 V. c. 27 / 34 & 35 V. c. 91	3,500 – –	
The Right Hon. Sir R. T. Kindersley, late Vice-Chancellor	5 V. c. 5 –	3,500 – –	
The Right Hon. Sir John Stuart, late Vice-Chancellor (to 29 October 1876)		2,816 1 10	
John Johnes, late County Court Judge (to 19 August 1876)	15 & 16 V. c. 54	508 13 11	
William Walker, late County Court Judge		800 – –	
James H. Blair – – – ditto		1,000 – –	
William Gurdon – – – ditto		1,000 – –	
Allan M. Skinner – – – ditto		1,000 – –	
Sir John E. E. Wilmot, Bart., late County Court Judge		1,000 – –	
Henry Stapylton, late County Court Judge	15 & 16 V. c. 54 / 28 & 29 V. c. 99	1,000 – –	
R. V. Williams – – – ditto		1,000 – –	
J. B. Parry, late County Court Judge (to 28 March 1876)		250 – –	
C. J. Gale, late County Court Judge (to 5 August 1876)		597 16 6	
E. J. Lloyd, Q.C. – – ditto		1,000 – –	
			48,578 7 7
	Carried forward	£.	266,724 16 8

* *See* p. 59 for Annuities to Judges and others of the Courts of Justice, Scotland.

DETAILED STATEMENT of Amount issued for Annuities and Pensions—*continued*.

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			266,724 16 8
PENSIONS for JUDICIAL SERVICES (IRELAND):			
The Right Hon. Sir Joseph Napier, late Lord Chancellor	40 G. 3, c. 69	3,692 6 –	
The Right Hon. Lord O'Hagan, late Lord Chancellor	40 G. 3, c. 69	3,692 6 –	
The Right Hon. James H. Monahan, late Chief Justice Common Pleas (from 11 January 1876)	40 G. 3, c. 69; 54 G. 3, c. 95	3,004 6 2	
The Right Hon. Mountifort Longfield, late Judge of Landed Estates Court	21 & 22 V. c. 72	1,666 13 4	
The Right Hon. Richard Keatinge, late Judge, Court of Probate (to 9 February 1876)	20 & 21 V. c. 79	294 17 5	
Mervyn Stewart, late Second Clerk, or Lord Treasurer's Remembrancer	5 & 6 W. 4, c. 55	575 10 4	
Arthur Bushe, late Master, Court of Queen's Bench	7 & 8 V. c. 107; 30 & 31 V. c. 129	1,384 12 –	
John Richard Corballis, late Assistant Barrister, County Kilkenny		660 – –	
Robert Tighe, late Assistant Barrister, County Limerick	21 & 22 V. c. 88	733 6 8	
Michael O'Shaughnessy, late Assistant Barrister, County Clare	21 & 22 V. c. 88	933 6 8	
Ditto – Arrears of Increased Rate of Pension (200 *l.* a-year), from 30 May 1872	33 & 34 V. c. 46	717 11 7	
			17,354 16 2

PENSIONS for DIPLOMATIC SERVICES:*	Date of Grant.		
Terrick Hamilton (to 15 September 1876)	25 Feb. 1825	484 – 2	
Right Hon. Sir G. H. Seymour, G.C.B.	14 April 1848	1,300 – –	
Percy W. Doyle, C.B.	27 Feb. 1858	700 – –	
Viscount Stratford de Redcliffe, G.C.B.	5 „ 1813; 14 Aug. 1833	1,786 – –	
Sir Thomas Wathen Waller, Bart.	21 Sept. 1858	700 – –	
Hon. G. Edgecumbe	18 June 1859	700 – –	
Hon. H. G. Howard	14 Oct. 1861	300 – –	
Sir James Hudson, G.C.B.	31 Aug. 1863	1,300 – –	
Sir Alexander Malet, Bart., K.C.B.	22 Feb. 1867	900 – –	
The Right Hon. the Earl Cowley, K.G., G.C.B.	22 „ 1867	1,700 – –	
Hon. Peter Campbell Scarlett, C.B.	8 May 1860; 22 Oct. 1867	900 – –	
William R. Ward	29 April 1867	700 – –	
Lord Napier and Ettrick, K.T.	18 Dec. 1865	1,700 – –	
Sir Chas. L. Wyke, K.C.B. (£. 900)	22 Feb. 1865 (Suspended while holding Office)	—	
			13,170 – 2
		Carried forward £.	297,249 13 –

* By Act 32 & 33 Vict. c. 43, the Salaries and Allowances of the Diplomatic Service were transferred from the Consolidated Fund to the annual Civil Service Estimates from April 1869; and all Pensions subsequently granted are similarly provided for. The Pensions included above are, therefore, those which were granted prior to April 1869.

DETAILED STATEMENT of Amount issued for Annuities and Pensions—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward			297,249 13 –
HEREDITARY PENSIONS:			
The Heirs of the Duke of Schomberg*	19 & 20 V. c. 59 (Transferred from Gross Revenues in 1854)	1,798 2 10	
The Earl of Bath (moiety)		1,200 – –	
The Heirs and Descendants of William Penn (for ever)	30 G. 3, c. 46	4,000 – –	
			6,998 2 10
MISCELLANEOUS PENSIONS:			
The Servants of her late Majesty Queen Charlotte	59 G. 3, c. 22	310 13 8	
„ his late Majesty George the Third	1 G. 4, c. 109	10 – –	
Pensions formerly on the Civil List of their late Majesties George the Fourth and William the Fourth, the Hereditary Revenues of Scotland, and 4½ per Cent. Duties	1 & 2 V. c. 95	9,238 6 4	
			9,559 – –
MISCELLANEOUS PENSIONS (IRELAND):			
The Trustees of Mrs. Sarah Hamilton and her Children	37 G. 3, c. 62	625 – 8	
Persons who suffered by the Rebellion in Ireland, in 1798	40 G. 3, c. 49	32 6 4	
Pensions formerly on the Civil List, Ireland	1 & 2 V. c. 95	2,204 15 –	
			2,862 2 –
TOTAL AMOUNT issued for ANNUITIES and PENSIONS		£.	316,668 17 10

* One moiety of this Pension, viz., 1,080 *l.*, payable to the Duke of Leeds, was commuted in 1876.

[*Estimated Charge of the above for the Year 1877–78*, £. 315,000.]

SALARIES AND ALLOWANCES.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for Payment of SALARIES and ALLOWANCES charged on the CONSOLIDATED FUND.

	By what Acts Granted	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
HOUSE OF COMMONS:			
The Right Honourable Henry B. W. Brand, Speaker	4 & 5 W. 4, c. 70	- -	5,000 - -
EXCHEQUER AND AUDIT DEPARTMENT:			
Sir William Dunbar, Bart., Comptroller and Auditor General	29 & 30 V. c. 39	2,000 - -	
C. L. Ryan, Assistant Comptroller and Auditor	29 & 30 V. c. 39	1,500 - -	
			3,500 - -
SCOTCH CLERGY:			
Augmentation of Stipends to Scotch Clergy	50 G. 3, c. 84; 4 G. 4, c. 79; 5 G. 4, c. 72 & 90; 17 & 18 V. c. 94	- -	17,039 19 10
HIGHLAND SCHOOLS, SCOTLAND:			
Allowances to School Boards of certain Prrishes	36 & 37 V. c. 83	- -	899 - -
CLERGY, WEST INDIES:			
Salaries of the Ecclesiastical Establishment in the West Indies	6 G. 4, c. 88; 7 G. 4, c. 4; 5 V. Sess. 2, c. 4; 31 & 32 V. c. 120	- -	10,487 5 -
INSPECTORS OF ANATOMY:			
Charles Hawkins (England)	2 & 3 W. 4, c. 75	100 - -	
Dr. Birkett (ditto)	2 & 3 W. 4, c. 75	100 - -	
Incidental Expenses (ditto)	2 & 3 W. 4, c. 75	562 15 4	
Dr. Andrew Wood (Scotland)	2 & 3 W. 4, c. 75	100 - -	
Incidental Expenses (ditto)	2 & 3 W. 4, c. 75	45 - -	
			907 15 4
	Carried forward £.		37,834 - 2

DETAILED STATEMENT of Amount issued for Salaries and Allowances—*continued.*

	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			37,834 – 2
COMPENSATIONS UNDER THE COPYRIGHT ACT:			
The University of Aberdeen	6 & 7 W. 4, c. 110	320 – –	
The University of St. Andrew's		630 – –	
The University of Edinburgh		575 – –	
The University of Glasgow		707 – –	
King's Inn Library, Dublin		433 6 8	
Sion College		363 15 2	
			3,029 1 10
MISCELLANEOUS:			
Salaries formerly charged on the Hereditary Revenues of Scotland, viz.:			
The High Commissioner to the General Assembly of the Church of Scotland	2 & 3 W. 4, c. 116	2,000 – –	
The General Assembly, Church of Scotland, for Itinerant Preachers		2,000 – –	
The Procurator, for Salaries of Officers, Church of Scotland		1,100 – –	
The Office of Heritable Usher of Scotland		242 15 –	
Six Trumpeters		100 18 –	
Hereditary Keeper, Deputy Keeper, and Porter, Holyrood House		133 5 4	
Officers of the Order of the Thistle		423 10 –	
			6,000 8 4
The Right Honourable William Beresford, Keeper of the Tennis Court	2 & 3 W. 4, c. 116		83 – –
Charges transferred from the Land Revenues of the Crown (*vide* Parliamentary Paper, No. 457, 1868)	29 & 30 V. c. 62		6,762 10 2
IRELAND.			
LORD LIEUTENANT:			
His Excellency the Lord Lieutenant	2 & 3 W. 4, c. 116		20,000 – –
QUEEN'S COLLEGES:			
Belfast	8 & 9 V. c. 66	7,000 – –	
Cork		6,982 3 8	
Galway		7,000 – –	
			20,982 3 8
INSPECTORS OF ANATOMY:			
Daniel F. Brady, M.D. (including 300*l.* Allowance for Expenses)	2 & 3 W. 4, c. 75	400 – –	
William Beamish, M.D. (Province of Munster)		70 – –	
			470 – –
Carried forward £.			95,161 4 2

DETAILED STATEMENT of Amount issued for Salaries and Allowances—*continued.*

	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			95,161 4 2
IRELAND—*continued.*			
MISCELLANEOUS:			
Salaries formerly charged on the Civil List, viz.:			
Edward Robertson, Kettle Drummer	2 & 3 W. 4, c. 116	61 16 4	
John T. Down, State Trumpeter		17 7 –	
Geo. Edmund Cotter, Clerk of the State Paper Office		445 19 4	
			525 2 8
Allowances to Sundry Persons, viz.:			
The French Minister at Dundalk		52 17 4	
The French Minister at Portarlington		43 18 4	
The Rector of the Parish of St. Paul, for attending the Sick in the Barracks of Dublin		70 4 –	
*The Vicar of Castleknock, in lieu of Tithe and Glebe Land in the Phœnix Park, near Dublin		44 11 8	
*The Minister of the Parish of St. James, in lieu of ditto		10 3 8	
*The Rector of St. Mitchan's Parish, in lieu of Minister's Money for Houses where the Courts of Justice are built	41 G. 3, c. 32	8 15 4	
*The Archbishop of Dublin, for Proxies out of divers Churches in the See of Dublin		15 16 –	
*The Bishop of Meath, for Proxies out of the Manor of Trim		2 18 –	
*The Dean and Chapter of Christ Church, Dublin		39 14 8	
*The Vicars Choral of Christ Church, Dublin		1 16 –	
The Lord Mayor and Citizens of Dublin		714 11 8	
The Under Librarian at Marsh's Library, St. Patrick's, Dublin		26 2 8	
Marquis of Downshire, for Rent of Ground near Carrickfergus Castle		13 18 4	
			1,045 7 8
Compensation to Weighmaster of Butter, viz.:			
Caleb Tyndall	10 G. 4, c. 41		118 6 –
TOTAL AMOUNT issued for SALARIES and ALLOWANCES		£.	96,850 – 6

* Now payable to the Irish Church Temporalities Commission.

[*Estimated Charge of the above for the Year 1877-78,* £. 95,250.]

COURTS OF JUSTICE.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for Payment of Salaries and Compensations to OFFICERS of COURTS of JUSTICE, charged on the CONSOLIDATED FUND.

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
GREAT BRITAIN.			
SALARIES.			
LORDS OF APPEAL IN ORDINARY:			
Rt. Hon. Lord Blackburn, from 1 Nov. 1876, at 6,000 *l.* per annum	39 & 40 V. c. 59	1,137 18 7	
Rt. Hon. Lord Gordon, from 1 Nov. 1876, at 6,000 *l.* per annum	" "	1,137 18 7	2,275 17 2
JUDICIAL COMMITTEE of PRIVY COUNCIL:			
The Right Hon. Sir James W. Colvile	34 & 35 V. c. 91	*3,500 – –	
The Right Hon. Sir Montague Edward Smith	" "	5,000 – –	
The Rt. Hon Sir Robert P. Collier	" "	5,000 – –	
The Right Hon. Sir Barnes Peacock	" "	†3,000 – –	16,500 – –
SUPREME COURT of JUDICATURE:			
HER MAJESTY'S COURT of APPEAL:			
Right Hon. Sir Wm. James - Lord Justice	15 & 16 V. c. 87, and 38 & 39 V. c. 77	6,000 – –	
Right Hon. Sir George Mellish ditto	" "	6,000 – –	
Right Hon. Sir R. Baggallay - Justice of Appeal	38 & 39 V. c. 77	5,000 – –	
Right Hon. Sir W. W. Bramwell (from 1 Nov. 1876) - ditto	39 & 40 V. c. 59	948 5 6	
Right Hon. Sir W. B. Brett (from 1 Nov. 1876) - ditto	" "	948 5 6	
Right Hon. Sir R. Amphlett (from 1 Nov. 1876) - ditto	" "	948 5 6	19,844 16 6
	Carried forward - - - £.		38,620 13 8

* In addition to a pension of 1,500 *l.* per annum from Indian Revenues.
† Ditto - - ditto - - 2,000 *l.* - ditto - - - ditto.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward - - -	- - - - -	- -	38,620 13 8
GREAT BRITAIN—*continued.*			
Salaries—*continued.*			
SUPREME COURT of JUDICATURE:			
HER MAJESTY'S HIGH COURT of JUSTICE:			
Chancery Division.			
Right Hon. Lord Cairns, Lord Chancellor - - President - -	15 & 16 V. c. 87, and 36 & 37 V. c. 66	* 6,000 - -	
Right Hon. Sir George Jessel - Master of the Rolls	14 & 15 V. c. 83, and 36 & 37 V. c. 66	6,000 - -	
Sir Richard Malins - - Vice Chancellor -	15 & 16 V. c. 87, 36 & 37 V. c. 66, and 38 & 39 V. c. 77	5,000 - -	
Sir James Bacon - - - ditto - -	" " "	5,000 - -	
Sir Charles Hall - - - ditto - -	" " "	5,000 - -	
			27,000 - -
Queen's Bench Division.			
Right Hon. Sir Alex. J. E. Cockburn, Bart., Lord Chief Justice - - President	14 & 15 V. c. 41, and 36 & 37 V. c. 66	8,000 - -	
Sir Colin Blackburn (to 31 Oct. 1876) - Judge -	2 & 3 W. 4, c. 116, and 36 & 37 V. c. 66	4,051 14 6	
Ditto - - - Termly Fee, due Easter and Trinity Terms, 1876 - -	38 & 39 V. c. 77 -	†20 - -	
Sir John Mellor - - - - - Judge -	36 & 37 V. c. 66 -	5,000 - -	
Sir Robert Lush - - - - - ditto -	" " "	5,000 - -	
Sir John R. Quain (to 12 Sept. 1876) - ditto -	" " "	3,389 3 6	
Sir Wm. Field - - - - - ditto -	" " "	5,000 - -	
Sir Henry Manisty (from 31 Oct. 1876) ditto -	" " "	962 12 10	
Sir Henry Hawkins (from 2 to 15 Nov. 1876) ditto -	" " "	‡ 201 3 -	
Henry G. Hodgson - - - - Master -	29 & 30 V. c. 101 -	1,500 - -	
John Unthank - - - - - ditto -	" " "	1,500 - -	
J. H. Brewer - - - - - ditto -	" " "	1,500 - -	
Charles M. Smith - - - - ditto -	" " "	1,500 - -	
George James P. Smith - - - ditto -	" " "	1,500 - -	
			39,124 13 10
Common Pleas Division.			
Right Hon. Lord Coleridge, Lord Chief Justice, Common Pleas - - - President	14 & 15 V. c. 41, and 36 & 37 V. c. 66	7,000 - -	
Sir W. B. Brett (to 31 Oct. 1876) - Judge -	36 & 37 V. c. 66 -	4,051 14 6	
Sir W. R. Grove - - - - - ditto -	" " "	5,000 - -	
Hon. G. Denman - - - - - ditto -	" " "	5,000 - -	
Sir Thomas D. Archibald (to 18 Oct. 1876) ditto -	" " "	3,864 18 10	
Sir Nathaniel Lindley - - ditto -	" " "	5,000 - -	
Sir H. C. Lopes - - - - - ditto -	" " "	862 1 4	
Carried forward - - - £.		30,778 14 8	104,745 7 6

* In addition to 4,000*l.* per annum, provided for in the Grant for House of Lords Offices (Civil Services Class II.)

† This fee ceased, on the appointment of Lord Blackburn to be Lord of Appeal in Ordinary, *vide* s. 29 of 38 & 39 Vict. c. 77.

‡ Mr. Justice Hawkins was appointed to the Queen's Bench Division of the High Court on the 2nd November, and transferred to the Exchequer Division on the 16th November 1876.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward - - -	- - - - -	30,778 14 8	104,745 7 6
GREAT BRITAIN—*continued.*			
Salaries—*continued.*			
SUPREME COURT of JUDICATURE—*cont^d.*			
HER MAJESTY'S HIGH COURT of JUSTICE—*cont^d.*			
Common Pleas Division—continued.			
John Gordon - - {Master - - - Registrar of Judgments}	29 & 30 V. c. 101 -	2,000 - -	
Julius T. Airey - - - - - Master -	" " -	1,500 - -	
Wm. M. Benett - - - - - ditto -	" " -	1,500 - -	
Joseph Kaye - - - - - ditto -	" " -	1,500 - -	
Hassard H. Dodgson - - - - ditto -	" " -	1,500 - -	
			38,778 14 8
Exchequer Division.			
Right Hon. Sir Fitzroy Kelly {Lord Chief Baron and President -}	{2 & 3 W. 4, c. 116, and 36 & 37 V. c. 66}	7,000 - -	
Sir Geo. W. W. Bramwell (to 31 Oct. 1876) Baron -	36 & 37 V. c. 66 -	4,051 14 6	
Sir Anthony Cleasby - - - - ditto -	" " -	5,000 - -	
Sir Charles E. Pollock - - - ditto -	" " -	5,000 - -	
Sir Richard P. Amphlett (to 31 Oct. 1876) ditto -	" " -	4,051 14 6	
Sir John W. Huddleston - - - ditto -	" " -	5,000 - -	
Sir Henry Hawkins (from 16 Nov. 1876) - -	" " -	*732 15 2	
Sir Wm. F. Pollock, Bart. {Master - - - Queen's Remembrancer}	29 & 30 V. c. 101 -	2,000 - -	
Geo. F. Pollock - - - - - Master -	" " -	1,500 - -	
M. H. Johnson - - - - - ditto -	" " -	1,500 - -	
C. H. Walton - - - - - ditto -	" " -	1,200 - -	
Hon. R. Butler - - - - - ditto -	" " -	1,200 - -	
			38,236 4
Probate, Divorce, and Admiralty Division.			
Right Hon. Sir James Hannen, Judge, President -	36 & 37 V. c. 66 -	5,000 - -	
Right Hon. Sir R. J. Phillimore, Judge - -	" " -	5,000 - -	
			10,000 - -
COURT of BANKRUPTCY:			
Sir James Bacon, Chief Judge [Receives salary only as Judge of Supreme Court] - - -	{12 & 13 V. c. 106, and 32 & 33 V. c. 91 -}	—	—
MIDDLESEX COURT of SESSIONS:			
Peter H. Edlin, Q.C., the Assistant Judge† - -	37 V. c. 7 - -	- -	750 - -
Carried forward - - - £.		- -	192,510 6 4

* Mr. Justice Hawkins was appointed to the Queen's Bench Division of High Court on the 2nd November, and transferred to the Exchequer Division on the 16th November 1876.

† The Assistant Judge also receives 750*l.* per annum from the County, under 37 Vict. c. 7.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward			192,510 6 4
GREAT BRITAIN—*continued.*			
Salaries—*continued.*			
JUDGES of COUNTY COURTS:			
Atkinson, H. Tindal, Q.C.		1,500 – –	
Abdy, John Thos.		1,500 – –	
Barrow, Francis (from 23 August 1876)		533 19 4	
Bayley, Francis		1,800 – –	
Beales, Edmond		1,500 – –	
Bedwell, Francis A.		1,500 – –	
Bere, Montague, Q.C.		1,500 – –	
Bradshaw, Thos. Jos.		1,500 – –	
Caillard, C. F. D.		1,500 – –	
Cole, H. W., Q.C. (to 19 June 1876)		704 13 5	
Collier, J.		1,500 – –	
Cooke, William H., Q.C.		1,500 – –	
Cox, Homersham		1,500 – –	
Daniel, W. T. S.		1,500 – –	
Dasent, J. B.		1,500 – –	
Ellison, Thomas		1,500 – –	
Falconer, Thomas		1,800 – –	
Fortescue, Matthew		1,500 – –	
Furner, William	19 & 20 V. c. 108	1,650 – –	
Fisher, R. A.	20 & 21 V. c. 36	1,500 – –	
Foulkes, W. W.	28 & 29 V. c. 99	1,500 – –	
Giffard, J. W. De L.		1,500 – –	
Harington, Richard		1,500 – –	
Herbert, J. M.		1,500 – –	
Hulton, William Adam		1,500 – –	
Hutton, Crompton		1,500 – –	
Henniker, A., Q.C., Deputy Judge (6 to 22 Aug. 1876)		69 5 10	
Ingham, T. Hastings		1,500 – –	
Kettle, Rupert Alfred		1,500 – –	
Leonard, Patrick M.		1,500 – –	
Lefroy, T. E. S.		1,500 – –	
Lonsdale, J. J.		1,500 – –	
Lloyd, Horatio		1,500 – –	
Martineau, A.		1,500 – –	
Miller, Mr. *Serjeant* R. (to 5 August 1876)		896 14 9	
Meynell, Edgar J.		1,500 – –	
Motteram, J., Q.C. (from 20 June 1876)		795 6 7	
Petersdorff, Mr. *Serjeant* C.		1,500 – –	
Price, Edwin P., Q.C.		1,500 – –	
	Carried forward £.	54,749 19 11	192,510 6 4

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward - - -	- - - -	54,749 19 11	192,510 6 4
GREAT BRITAIN—*continued.*			
Salaries—*continued.*			
Judges of County Courts—*continued.*			
Riddell, Sir Walter B. - - - - - -	- - - -	1,500 - -	
Russell, George - - - - - - -	- - - -	1,500 - -	
Russell, George Lake - - - - - -	- - - -	1,500 - -	
Russell, J. A. - - - - - - -	- - - -	1,500 - -	
Smith, Josiah William - - - - - -	- - - -	1,500 - -	
Spooner, William - - - - - - -	- - - -	1,500 - -	
Stephen, James, LL.D. - - - - - -	- - - -	1,500 - -	
Stonor, Henry James - - - - - -	- - - -	1,500 - -	
Sumner, Charles - - - - - - -	- - - -	1,500 - -	
Taylor, John Pitt - - - - - -	19 & 20 V. c. 108	1,800 - -	
Terrell, T. H. - - - - - - -	20 & 21 V. c. 36	1,500 - -	
Thompson, T. P. E. - - - - - -	28 & 29 V. c. 99	1,500 - -	
Turner, E. R. - - - - - - -	- - - -	1,500 - -	
Wheeler, Dr. Thomas - - - - - -	- - - -	1,500 - -	
Whitbread, Gordon - - - - - -	- - - -	1,500 - -	
Whigham, James - - - - - -	- - - -	1,500 - -	
Whitmore, Charles Shapland - - - -	- - - -	1,500 - -	
Wildman, Richard - - - - - -	- - - -	1,500 - -	
Worlledge, John - - - - - -	- - - -	1,500 - -	
Woodforde, W. Ffooks - - - - - -	- - - -	1,500 - -	
Yates, Joseph St. John - - - - -	- - - -	1,800 - -	
			86,849 19 11
POLICE COURTS:			
Magistrates, Police Courts of the Metropolis (one at £. 1,800, and 22 at £. 1,500 per annum) -	38 V. c. 3 - -	34,800 - -	
Francis E. Guise, Stipendiary Magistrate for Chatham and Sheerness - - - - - -	30 & 31 V. c. 63 -	700 - -	
			35,500 - -
COMPENSATIONS.			
COURT OF CHANCERY:			
Frederick Newman Appleyard, Cursitor - -	11 G. 4, & 1 W. 4, c. 58	210 17 8	
Richard Hall Appleyard, Cursitor (to 29 May 1876)	" " -	42 8 4	
Philip Pensam { Cursitor - - - - - -	" " -	230 18 4	
Philip Pensam { Acting Cursitor - - - -	5 & 6 W. 4, c. 82	170 - -	
John Holdship, Chaff Wax - - - - -	15 & 16 V. c. 87 - 9 & 10 V. c. 95 - 11 G. 4, & 1 W. 4, c. 58	1,145 11 -	
Samuel Hollyer, Deputy Sealer - - - -	15 & 16 V. c. 87 -	209 - -	
			2,008 15 4
	Carried forward - - - £.		316,869 1 7

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward - - -	- - - -	- -	316,869 1 7
GREAT BRITAIN—*continued.*			
Compensations—*continued.*			
COURT OF QUEEN'S BENCH:			
Hon. Edward Kenyon, Clerk, Nisi Prius - Oxford and Western Circuits - - -	7 W. 4, & 1 V. c. 30	252 - -	
Hon. Edward Kenyon, Clerk, Nisi Prius - City of, London and other Cities - -	„ „ -	112 10 -	
George Symonds - - Bag-bearer to the Custos Brevium - - -	„ „ -	117 - -	
Hon. H. Spencer Law - Clerk of the Docquets -	„ „ -	450 - -	
William Belt - - Sworn Clerk in Court, Examiner, Calender Keeper, and Clerk of Grand Juries in Crown Office - - -	„ „ -	536 4 4	
Duke of Grafton - - Comptroller of the Seals in the Courts of Queen's Bench and Common Pleas - -	8 & 9 V. c. 34 -	843 - -	
			2,310 14 4
COURT OF COMMON PLEAS:			
Sir Pyers Mostyn, Bart. (in perpetuity) - Custos Brevium - -	7 W. 4, & 1 V. c. 30	303 5 -	
Sir Pyers Mostyn, Bart. (in perpetuity) - For loss of right of appointment to the office of Second Prothonotary (one moiety)	„ „ -	402 10 -	
Sir Pyers Mostyn, Bart. (in perpetuity) - For loss of right of appointment of Second Secondary (one moiety)	„ „ -	51 3 8	
Sir Pyers Mostyn, Bart. (in perpetuity) - For loss of appointment of Clerk of the Juries (one moiety) -	„ „ -	30 - -	
Sir William Eden, Bart. (in perpetuity) - Custos Brevium - -	„ „ -	303 5 -	
Sir William Eden, Bart. (in perpetuity) - For loss of right of appointment to the office of Second Prothonotary (one moiety)	„ „ -	402 10 -	
Sir William Eden, Bart. (in perpetuity) - For loss of right of appointment of Second Secondary (one moiety)	„ „ -	51 3 8	
Sir William Eden, Bart. (in perpetuity) - For loss of appointment of Clerk of the Juries (one moiety) -	„ „ -	30 - -	
Charles W. Brown, Clerk, Warden's Office, Fleet Prison - - - - - - - - -	5 V. Sess. 2, c. 22	78 - -	
John Speed Davis, Paymaster of Poor Prisoners -	„ „ -	22 10 -	
			1,674 7 4
	Carried forward - - - £.		320,854 3 3

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward			320,854 3 3
GREAT BRITAIN—*continued.*			
Compensations—*continued.*			
COURT OF EXCHEQUER:			
Hugh Wood, Sworn Clerk, Queen's Remembrancer's Office (to 23 October 1876)	7 W. 4, & 1 V. c. 30	110 12 5	
William Gatty, Side Clerk, Queen's Remembrancer's Office	" "	174 15 –	
Francis Henry Rich, Queen's Remembrancer's Office	" "	46 9 –	
Frank Milne, Queen's Remembrancer's Office	" "	33 – –	
C. Meredith, Sworn and Side Clerk	11 G. 4, & 1 W. 4, c. 58	58 10 –	
C. Panton, R. Harrison (in perpetuity) — Officers of the Pipe	3 & 4 W. 4, c. 99	25 – – 62 9 8	
Richard Rouse Ellicombe, Assistant Chief Proclamator and Usher	15 & 16 V. c. 73	87 7 –	
Richard Rouse Ellicombe, Patent Messenger	" "	93 18 4	
Edward Simon Stephenson, Patent Messenger for South Wales	" "	13 18 4	
			705 19 9
COURTS OF REQUESTS:			
Arnold, David — Bailiff, St. Albans		10 19 8	
Ashbrooke, Thomas — Clerk, Treasurer's Office, Liverpool		73 6 8	
Bales, John — Serjeant, Yarmouth		12 12 –	
Barker, Robert — Clerk, Sheffield		166 13 4	
Bourne, Henry Titus — Clerk, Alford		22 18 8	
Emmerson, R. Joynes — Clerk, Sandwich		12 – –	
Flather, Thomas — Bailiff, Pontefract		76 – –	
Foster, Jeremiah — Execution Officer, Middlesex		72 1 –	
Goff, William — Beadle, Brixton		60 13 4	
Grapes, George — Bailiff, Isle of Wight		52 – –	
Greenwood, William — ditto Eccleshall	9 & 10 V. c. 95	110 8 –	
Gregory, John — ditto Tower Hamlets		100 – –	
Guest, John — Clerk, Birmingham		562 – –	
Harris, William Silk — Clerk, Liverpool		66 13 4	
Heath, D. D. — County Clerk, Middlesex		3,100 – –	
Jewison, Thomas — Bailiff, Pontefract		99 14 4	
Keene, Frederick — Serjeant, Southwark		45 11 –	
Keilor, John — ditto Southwark		79 12 –	
Lane, Samuel — Bailiff, Westbury		16 2 –	
Livick, James — ditto Ramsgate		12 10 –	
Carried forward £.		4,751 15 4	321,560 3 –

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward		4,751 15 4	321,560 3 –
GREAT BRITAIN—*continued.*			
Compensations—*continued.*			
Courts of Requests—*continued.*			
Mawer, Joseph — Serjeant, Sibsey		22 13 4	
Mayfield, Joseph — ditto Oldbury		72 12 8	
Merrefield, William — Beadle, Kidderminster		66 10 4	
Molyneux, Hon. F. G. — Clerk, Manchester		148 17 4	
Parker, John — Judge, Sheffield		1,239 4 –	
Pollock, L. A. — Clerk, Ramsgate		25 16 –	
Prinn, Richard — Serjeant, Shrewsbury		27 10 8	
Roberts, James — Bailiff, Liverpool		52 – –	
Smilter, W. L. — ditto Sheffield, and Deputy		576 – –	
Sharp, George — Beadle, Tower Hamlets	9 & 10 V. c. 95	66 13 4	
Spring, Jonathan — Serjeant, Brigg		14 13 4	
Swift, Charles — Bailiff, Beverley		16 13 4	
Towl, Thomas — Serjeant, Burgh		11 7 –	
Webb, John — ditto Dartford		46 – 8	
Whieldon, Isaac — Execution Officer, Middlesex (to 21 April 1876)		27 15 8	
Wilkins, George — Clerk, Warminster		40 – –	
Willis, John Needs — Clerk, Bath		100 – –	
Wright, Jonathan — Bailiff, Pontefract		31 1 4	
			7,337 4 4
Jeffreys, J. G. — Registrar, Swansea	7 & 8 V. c. 96	17 14 6	
Gully, John Geo. — ditto Exeter Borough Gaol	9 & 10 V. c. 95 17 & 18 V. c. 115	78 17 1	
			96 11 7
MARSHALSEA PRISON:			
Rev. Henry Collison, Chaplain	5 V. Sess. 2, c. 22		36 – –
MARSHALSEA COURT:			
James Dolman — Attorney		504 – –	
Mark Shepard — ditto		455 – –	
John Pinner — Bailiff or Officer		51 – –	
Henry Herrick — ditto		53 – –	
George Kirby — ditto		101 – –	
George Simmons — ditto	12 & 13 V. c. 101	28 – –	
John Griffiths, junior — ditto		50 – –	
Frederick W. Adams — ditto		50 – –	
Aaron Johnson — ditto		20 – –	
William Stone — ditto		50 – –	
William Corrie — Deputy Judge		70 – –	
			1,432 – –
	Carried forward	£.	330,461 18 11

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			330,461 18 11
GREAT BRITAIN—*continued.*			
Compensations—*continued.*			
For LOSS of POST FINES:			
The Ecclesiastical Commissioners for England in respect of the Sees of Canterbury	5 & 6 W. 4, c. 82 - 23 & 24 V. c. 124 -	22 19 6	
York		10 16 10	
Bath and Wells		38 19 –	
Durham		7 6 2	
Ely		34 14 8	
London		10 1 5	
Rochester		6 15 6	
Salisbury		8 1 7	
Winchester		6 14 1	
Sir Thomas Edward Colebrooke, Bart.	5 & 6 W. 4, c. 82 -	60 15 –	
The Marquis of Salisbury		4 10 –	
The Corporation of New Windsor		1 10 4	
William George Tyssen Daniel Tyssen, now Wm. Geo. Tyssen Amhurst		1 9 –	
Sir Edward Hulse, Bart.		10 4 6	
The Duke of Norfolk		56 – 2	
Earl of Powis		3 18 8	
			284 16 5
ECCLESIASTICAL AND PREROGATIVE COURTS:			
Compensations to Officers of the late Ecclesiastical, Royal Peculiar and other Testamentary Courts in England and Ireland (including 124 *l.* 9 *s.* paid in Ireland)	20 & 21 V. cc. 77 and 79	- -	65,241 3 6
MISCELLANEOUS:			
Abraham Cann, Prothonotary, Court of Record, Honor of Peveril	12 & 13 V. c. 101 -	113 – –	
Henry Cooper, Bailiff, Court of Offlow, Staffordshire	15 & 16 V. c. 54 -	35 18 –	
Henry Budd, Bailiff, Court of Offlow, Staffordshire		43 – 8	
William Skellett, Bailiff, Court of Hemlingford, Warwickshire		31 18 4	
Robert Whiteby Nevill, Steward, Court of Hemlingford, Warwickshire		62 6 –	
J. W. R. Wilson, Cursitor, Court of Chancery, County Palatine of Lancaster (to 10 October 1875)	11 G. 4 & 1 W. 4, c. 58	56 5 5	
C. B. Walker, Cursitor, Court of Chancery, County Palatine of Lancaster		72 11 6	
			414 19 11
	Carried forward £.		396,402 18 9

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.		By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward				396,402 18 9
GREAT BRITAIN—*continued.*				
COURTS OF JUSTICE IN SCOTLAND:				
SALARIES:				
The Right Hon. John Inglis, Lord Justice General, and President			4,800 – –	
The Right Hon. Lord Moncreiff, Lord Justice Clerk and President of the Second Division			4,500 – –	
Sir George Deas	Judge		3,000 – –	
Charles Neaves, Judge, (to 23 December 1876)			2,934 15 8	
James Crawfurd, of Ardmillan, Judge (to 7 September 1876)	Court of Session	50 G. 3, c. 31 - 2 & 3 V. c. 36 - 17 & 18 V. c. 94	2,062 10 –	
Robert Macfarlane, of Ormidale, Judge	ditto		3,000 – –	
David Mure	ditto		3,000 – –	
Adam Gifford	ditto		3,000 – –	
Alex. Burns Shand	ditto		3,000 – –	
Right Hon. George Young	ditto		3,000 – –	
John Millar, of Craighill	ditto		3,000 – –	
John Marshall, of Curriehill	ditto		3,000 – –	
Rutherford Clark	ditto		3,000 – –	
James Adam, at 3,000 *l.* per annum, Judge (from 27 November 1876)			285 6 6	
				41,582 12 2
*SHERIFFS OF COUNTIES:				
John Guthrie Smith	Aberdeen and Kincardine	16 & 17 V. c. 80, 33 & 34 V. c. 86, and 39 & 40 V. c. 70	812 10 –	
Alexander Forbes Irvine	Argyll	16 & 17 V. c. 80	700 – –	
Neil C. Campbell	Ayr		700 – –	
Benjamin R. Bell	Banff, Elgin, and Nairn	16 & 17 V. cc. 80 & 92	700 – –	
George Hunter Thoms	Caithness, Orkney, and Zetland	16 & 17 V. c. 80, and 33 & 34 V. c. 86	700 – –	
Mark Napier	Dumfries and Galloway	16 & 17 V. c. 80 - 33 & 34 V. c. 86, s. 7, and 39 & 40 V. c. 70	675 – –	
James Arthur Crichton	Fife		725 – –	
Frederick L. M. Heriot	Forfar		1,000 – –	
William Ivory	Inverness	16 & 17 V. c. 80	700 – –	
William Gillespie Dickson (to 19 October 1876)	Lanark		1,603 5 2	
Francis W. Clark (from 1 Dec. 1876)	Lanark	16 & 17 V. c. 80	168 9 6	
George Monro	Linlithgow, Clackmannan, and Kinross	16 & 17 V. cc. 80 & 92	650 – –	
Archibald Davidson	Midlothian and Haddington	16 & 17 V. c. 80, and 33 & 34 V. c. 86	1,700 – –	
George Napier	Peebles	16 & 17 V. c. 80	500 – –	
James Adam (to 26 November 1876)	Perth, and a Member of the Board of Supervision for the Relief of the Poor	16 & 17 V. c. 80, and 30 & 31 V. c. 101	814 8 –	
	Carried forward £.		12,148 12 8	437,985 10 11

* The salaries of Sheriffs and Sheriffs Substitutes, &c., were transferred to the Consolidated Fund, from the gross revenues, by Act 17 & 18 Vict. c. 94. Additions to the salaries of Sheriffs of united counties were, under Section 11 of the 33 & 34 Vict. c. 86, paid out of voted monies, but under Section 53 of

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.		By what Acts Granted.	Amounts Issued for Payment.	
			£. s. d.	£. s. d.
Brought forward			12,148 12 8	437,985 10 11
GREAT BRITAIN—*continued.*				
COURTS of JUSTICE in SCOTLAND—*continued.*				
Salaries—*continued.*				
* Sheriffs of Counties—*continued.*				
Patrick Fraser	Renfrew and Bute, and a Member of the Board of Supervision for the Relief of the Poor	16 & 17 V. c. 80, 33 & 34 V. c. 86, and 39 & 40 V. c. 70	837 10 –	
John H. A. Macdonald (to 1 Dec. 1876)	Ross, Cromarty, and Sutherland, and a Member of the Board of Supervision for the Relief of Poor	16 & 17 V. c. 80, 33 & 34 V. c. 86, and 39 & 40 V. c. 70	780 14 1	
George H. Pattison	Roxburgh, Berwick, and Selkirk	16 & 17 V. cc. 80 & 92, 33 & 34 V. c. 86, and 39 & 40 V. c. 70	675 – –	
Robert Lee	Stirling and Dumbarton	16 & 17 V. c. 80, 33 & 34 V. c. 86, and 39 & 40 V. c. 70	687 10 –	
George Monro	Convener of the Sheriffs	Treasury Letter, 24 November 1866	50 – –	
John McLaren	Sheriff of Chancery	17 & 18 V. c. 72	500 – –	
				15,679 6 9
* SHERIFFS SUBSTITUTES:				
John C. Thomson	Aberdeen and Kincardine	16 & 17 V. c. 80	1,000 – –	
John D. Wilson	Aberdeen and Kincardine	33 & 34 V. c. 86	1,000 – –	
Wm. A. Orr Paterson	Ayrshire—Ayr	16 & 17 V. c. 80	800 – –	
Thomas Anderson	„ Kilmarnock	„ „	800 – –	
James Gardiner	Argyllshire: Campbeltown	„ „	500 – –	
Sir George Home, Bart.	Inverary	„ „	650 – –	
Hugh Ross	Tobermory	„ „	525 – –	
James Gordon	Banff	„ „	550 – –	
George Dickson	Berwick	„ „	650 – –	
Robert Orr	Bute	„ „	525 – –	
Hamilton Russel	Caithness	„ „	600 – –	
William B. Clark (to 21 July 1876)	Clackmannan	„ „	292 9 2	
William C. Steel	Dumbarton	„ „	600 – –	
David B Hope	Dumfries	„ „	800 – –	
Frederick Hallard	Edinburgh	16 & 17 V. c. 80, and 27 & 28 V. c. 106	1,300 – –	
Hubert Hamilton	Edinburgh		1,100 – –	
Francis Gebbie (Acting) (from 5 August to 30 December 1875)	Edinburgh	16 & 17 V. c. 80	281 10 5	
Donald M. Smith	Elgin	„ „	600 – –	
Andrew B. Bell	Fifeshire—Cupar	„ „	700 – –	
	Carried forward £.		13,273 19 7	453,664 17 8

39 & 40 Vict. c. 70, were charged on the Consolidated Fund from the 1st October 1876. The following sums, being the additions for one quarter, are included in the above amounts, viz., John Guthrie Smith, 62 *l.* 10 *s.*; Mark Napier, 75 *l.*; Patrick Fraser, 37 *l.* 10 *s.*; George H. Pattison, 25 *l.*; and Robert Lee, 37 *l.* 10 *s.*

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.		By what Acts Granted.	Amounts Issued for Payment.	
			£. s. d.	£. s. d.
Brought forward			13,273 19 7	453,664 17 8
GREAT BRITAIN—*continued.*				
COURTS of JUSTICE in SCOTLAND—*continued.*				
Salaries—*continued.*				
* Sheriffs Substitutes—*continued.*				
William Lamond	Fifeshire—Dunfermline		600 – –	
	Forfarshire:			
Alexander Robertson	Forfar		700 – –	
John Cheyne	Dundee		1,000 – –	
Charles James Shirreff	Haddington		600 – –	
	Inverness-shire:			
Patrick Blair	Inverness	16 & 17 V. c. 80	800 – –	
Thomas Fraser (to 4 July 1876)	Skye		273 6 3	
Charles Shaw	Long Island		500 – –	
James Simpson	Fort William		550 – –	
David Syme	Kinross		500 – –	
Alexander Nicholson	Kirkcudbright		550 – –	
	Lanarkshire:			
Alexander E. Murray	Glasgow (First)	16 & 17 V. c. 80, and	1,400 – –	
James Galbraith	„ (Second)	27 & 28 V. c. 106	1,200 – –	
Francis W. Clark (to 30 November 1876)	„ (Third)	16 & 17 V. c. 80, s. 37	915 15 2	
William Guthrie (1,000*l.* (from 8 December 1876)	„ (Third)	„ „	906 10 5	
John M. Lees (900*l.* a year from 8 December 1876)	„ (Fourth)	38 & 39 V. c. 81	806 10 5	
Walter Cook Spens (800*l.* a year from 8 December 1876)	„ (Fifth)		500 – –	
John Neil Dyce	Lanark		52 3 6	
Walter Cook Spens (to 7 December 1876)	Hamilton		654 6 11	
John Black L. Birnie (to 7 December 1876)	Airdrie		607 12 2	
J. Black L. Birnie (from 8 December 1876, at 700*l.* year)	Hamilton		45 13 1	
D. Davidson Balfour (from 11 December 1876, at 650*l.* a year)	Airdrie	16 & 17 V. c. 80	37 1 10	
Francis Home	Linlithgow		550 – –	
Alexander Falconar	Nairn		500 – –	
John Campbell Mellis (from 11 January 1876)	Orkney		510 11 6	
Thomas H. Orphoot	Peebles		500 – –	
	Perthshire:			
Hugh Barclay	Perth		900 – –	
John Grahame	Dumblane		500 – –	
	Carried forward	£.	29,933 10 10	453,664 17 8

* *See* Note on page 56.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.		By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
	Brought forward - - -	- - - -	29,933 10 10	453,664 17 8
GREAT BRITAIN—*continued.*				
COURTS of JUSTICE in SCOTLAND—*continued.*				
Salaries—*continued.*				
* Sheriffs Substitutes—*continued.*				
	Renfrewshire:			
Hugh Cowan - -	Paisley - - -	- - - -	800 - -	
Harry Smith - -	Greenock - - -	- - - -	800 - -	
	Ross-shire:			
Crawfurd Hill - -	Dingwall - - -	- - - -	600 - -	
Harry M. Taylor (to 9 December 1876) -	Tain and Cromarty -	- - - -	517 2 4	
Charles Grey Spittal -	Stornoway - - -	- - - -	500 - -	
Francis Russell - -	Roxburghshire — Jedburgh - - -	- - - -	650 - -	
James S. Milne - -	Selkirk - - -	16 & 17 V. c. 80 -	500 - -	
Robert Sconce (to 8 August 1876) - -	Stirlingshire: Stirling - - -	- - - -	424 3 8	
Robert Bell - - -	Falkirk - - - -	- - - -	700 - -	
Thomas Mackenzie -	Sutherland - - - -	- - - -	600 - -	
Macduff Rhind - -	Wigtown - - - -	- - - -	650 - -	
Andrew Mure - -	Zetland - - - -	- - - -	500 - -	
J. R. Buntine (from 9 August 1876) - -	Stirling - - -	- - - -	275 16 4	
				37,450 13 2
† SHERIFF CLERKS:				
John Taylor - -	Cromarty - - -	- - - -	78 5 8	
Thomas Barclay (to 30 July 1876) - -	Fife - - - -	17 & 18 V. c. 94 -	610 11 11	
George Webster - -	Forfar - - - -	19 & 20 V. c. 59 -	1,200 - -	
George Rutherford -	Roxburgh - - -	- - - -	580 11 -	
Donald Taylor - -	Sutherland - - -	- - - -	202 - -	
John Macmillan (30 October 1875 to 23 October 1876) - -	Interim Sheriff Clerk of Chancery - -	31 & 32 V. c. 101, s. 54 - - -	319 11 2	
David Johnson Macbrair (24 October to 31 December 1876) -	Sheriff Clerk of Chancery - - -		56 5 -	
				3,047 4 9
ANNUITIES:				
John Cowan - -	Late Judge of the Court of Session - -	- - - -	2,250 - -	
The Hon. Charles Baillie, of Jerviswoode -	Ditto - - -	48 G. 3, c. 145 -	2,250 - -	
William O. Rutherfurd	Late Sheriff of Roxburgh	16 & 17 V. c. 80 -	399 16 4	
John Tait - - -	Late Sheriff of Perth -		712 10 -	
	Carried forward - - - £.		5,612 6 4	494,162 15 7

* *See* Note on page 56.

† The salaries of the Sheriffs Clerks in Scotland will be transferred, as vacancies occur, to the Civil Service Estimates.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.		By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			5,612 6 4	494,162 15 7
GREAT BRITAIN—*continued.*				
COURTS of JUSTICE in SCOTLAND—*continued.*				
Annuities—*continued.*				
James Watson (to 16 November 1876)	Late Sheriffs Substitute. Lower Ward, Lanark		146 5 8	
William H. Colquhoun	Inverness		475 11 –	
John Maclaurin	Inverary		472 13 4	
William Watson	Aberdeen		668 7 –	
Arthur Burnett	Peebles		375 – –	
Robert S. Taylor	Cupar		525 – –	
James Skelton	Peterhead		412 10 –	
Andrew L. Macdonald	Stornoway	1 & 2 V. c. 119	375 – –	
Wliliam H. Dunbar	Kirkcudbright		412 10 –	
James Robison	Ayr		497 10 9	
James Campbell	Edinburgh		975 – –	
James Robertson (to 12 January 1876)	Kirkwall		12 19 7	
Robert Sconce (from 9 August 1876)	Stirling		183 17 6	
John Richardson (to 17 December 1876	Late Judge's Clerk		96 3 10	
John Gibb	ditto		60 – –	
George R. Kinloch	ditto		100 – –	
Archibald Christie	ditto		100 – –	
Francis S. Melville	ditto		80 – –	
Lockhart Thomson	ditto		100 – –	
William T. R. Beveridge	ditto		80 – –	
James Ramsay	ditto		100 – –	
Letham Anderson (to 23 February 1876)	ditto		14 15 8	
John M'Ewen	ditto		100 – –	
John Macritchie	ditto	1 & 2 V. c. 118, s. 17	100 – –	
David S. Shiress	ditto		100 – –	
William Anderson	ditto		100 – –	
Alexander Rickard Black	ditto		100 – –	
Thomas Logan	ditto		100 – –	
W. Dick Wallace (from 8 September 1876)	ditto		31 5 –	
Robert D. Cay	Late Judge's Clerk and Keeper of the Rolls of the Court of Session		166 13 4	
Donald Robertson	ditto		166 13 4	
William Reid	ditto		166 13 4	
				13,006 16 8
COMPENSATIONS:				
William Drysdale	Late Assistant Clerk of Session	1 & 2 V. c 118	179 18 5	
Matthew F. Conolly	Town Clerks. Anstruther and Crail		8 2 5	
Andrew C. Stephen	Culross		2 2 8	
Charles Gulland	Falkland		3 1 –	
Alexander Hamilton	Kilmarnock	10 & 11 V. c. 47	4 16 4	
Thomas Lees	Musselburgh		2 18 –	
William Black	Stranraer		4 12 –	
W. P. Dundas (Year to 15 November 1875)	Keeper of the Register of Entails	10 & 11 V. c. 47, s. 34	27 – 7	
				232 11 11
Carried forward			£.	507,402 4 2

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£ s. d.
Brought forward			507,402 4 2
IRELAND.			
SALARIES.			
COURT OF CHANCERY:			
The Right Hon. John T. Ball, Lord Chancellor	2 & 3 W. 4, c. 116	8,000 – –	
The Right Hon. E. Sullivan, Master of the Rolls	4 G. 4, c. 61	3,969 4 8	
The Right Hon. Jonathan Christian, Lord Justice, Court of Appeal	19 & 20 V. c. 92	4,000 – –	
The Right Hon. H. E. Chatterton, Vice Chancellor	30 & 31 V. c. 44	4,000 – –	
Gerald Fitzgibbon, Receiver Master	13 & 14 V. c. 51 / 30 & 31 V. c. 44	2,500 – –	
			22,469 4 8
COURT OF QUEEN'S BENCH:			
The Right Hon. James Whiteside, Chief Justice (to 25 November 1876)		*4,291 19 11	
The Hon. James O'Brien, Justice	2 & 3 W. 4, c. 116	3,725 19 4	
The Right Hon. J. D. Fitzgerald, Justice		3,688 12 4	
The Right Hon. C. R. Barry, Justice		3,688 12 4	
Hugh Lane, Master	30 & 31 V. c. 129	1,200 – –	
			16,595 3 11
COURT OF COMMON PLEAS:			
The Right Hon. Michael Morris, Chief Justice (from 9 February 1876)		4,182 1 1	
The Right Hon. J. H. Monahan, Chief Justice (to 10 January 1876, at 4,612*l.* 18*s.* 8*d.* per annum)		63 7 3	
The Right Hon. William Keogh, Justice	2 & 3 W. 4, c. 116	3,688 12 4	
The Right Hon. J. A. Lawson, Justice		3,688 12 4	
The Right Hon. Michael Morris, Justice (to 8 February 1876)		344 10 9	
Charles G. Burke, Master	7 & 8 V. c. 107 / 30 & 31 V. c. 129	1,400 – –	
			13,367 3 9
COURT OF EXCHEQUER:			
The Right Hon. Christopher Palles, Chief Baron		4,612 18 8	
The Hon. Fras. A. Fitzgerald, Baron	2 & 3 W. 4, c. 116	3,688 12 4	
The Right Hon. Rickard Deasy, Baron		3,688 12 4	
The Right Hon. Richard Dowse, Baron		3,688 12 4	
D. R. Pigott, Master	30 & 31 V. c. 129	1,200 – –	
			16,878 15 8
COURT of PROBATE:			
The Right Hon. R. R. Warren, Judge	20 & 21 V. c. 79		3,500 – –
LANDED ESTATES COURT:			
The Hon. S. W. Flanagan, Judge	21 & 22 V. c. 72	3,000 – –	
The Right Hon. Henry Ormsby, Judge	29 & 30 V. c. 99	3,000 – –	
			6,000 – –
HIGH COURT of ADMIRALTY:			
The Hon. John F. Townsend, LL.D., Judge	30 & 31 V. c. 114		1,200 – –
	Carried forward	£.	587,412 12 2

* £. 200 Irish ; 184*l.* 12*s.* 4*d.* deducted from the Chief Justice's salary, towards provision for a substitute during his illness.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment. £. s. d.	£. s. d.
Brought forward			587,412 12 2
IRELAND—*continued.*			
Salaries—*continued.*			
MISCELLANEOUS:			
*Chairmen of Quarter Sessions, and Judges of Civil Bill Courts (including 100*l.* each for revising Lists of Voters), viz.:			
County Tipperary	Special	1,100 – –	
Cork, East Riding	Special	1,100 – –	
Dublin, County	Special	900 – –	
Antrim	1st Class	1,100 – –	
Armagh	1st Class	1,100 – –	
Clare	1st Class	1,100 – –	
Donegal	1st Class	1,100 – –	
Down	1st Class	1,100 – –	
Galway	1st Class	1,100 – –	
Kerry	1st Class	1,100 – –	
Kilkenny	1st Class	1,100 – –	
Limerick	1st Class	1,100 – –	
Londonderry	1st Class	1,100 – –	
Mayo	1st Class	1,100 – –	
Monaghan	1st Class	1,100 – –	
Tyrone	1st Class	1,100 – –	
Cavan	2nd Class	900 – –	
Cork, West Riding	2nd Class	900 – –	
Fermanagh	2 & 3 W. 4, c. 88	900 – –	
Leitrim	14 & 15 V. c. 57	900 – –	
Queen's	21 & 22 V. c. 88	900 – –	
Roscommon	2nd Class	900 – –	
Sligo	2nd Class	900 – –	
Waterford	2nd Class	900 – –	
Wexford	2nd Class	900 – –	
Carlow	3rd Class	700 – –	
Kildare	3rd Class	700 – –	
King's	3rd Class	700 – –	
Longford	3rd Class	700 – –	
Louth	3rd Class	700 – –	
Meath	3rd Class	700 – –	
Westmeath	3rd Class	665 7 8	
Wicklow	3rd Class	700 – –	
Right Hon. Sir Frederick Shaw, Recorder of the City of Dublin (to 30th June 1876)		128 17 4	
F. R. Falkiner, Q.C., Recorder of the City of Dublin (from 8 July 1876)		116 12 5	
Thomas Forsaythe, Recorder, Borough of Cork		100 – –	
			31,410 17 5
†Henry Colles, Taxing Officer in Common Law Business	16 & 17 V. c. 55	– –	1,000 – –
G. Battersby, Q.C., for presiding as Judge in the place of Chief Justice Whiteside (Summer Circuit)		– –	369 4 8
J. Robinson, Q.C., for services at Spring Assizes, during illness of Lord Chief Baron	36 G. 3, c. 26 (Irish)	– –	369 4 8
	Carried forward	£	620,561 18 11

* In receipt also of remuneration from the Grants for "Miscellaneous Legal Charges" (Class III., Civil Services), for additional duties imposed under Act 33 & 34 Vict. c. 46, s. 63.

† The salary of this office, when vacated, will be transferred to the Civil Service Estimates.

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward			620,561 18 11
IRELAND—*continued.*			
COMPENSATIONS.			
COURT of CHANCERY:			
William Brooke, Master in Ordinary	30 & 31 V. c. 44	2,769 4 8	
Jeremiah J. Murphy - ditto	30 & 31 V. c. 44	2,769 4 8	
			5,538 9 4
COURT of QUEEN'S BENCH:			
Arthur Bushe, Master	7 & 8 V. c. 90 - 13 & 14 V. c 74 -	56 - -	
James A. Hamilton, Principal Assistant	30 & 31 V. c. 129	800 - -	
John S. Hamilton, General Clerk	-	346 3 -	
John Houston, Searching Clerk (to 15 November 1876)	-	226 18 7	
Prowse Christian, Searching Clerk	-	50 - -	
Edward H. Moore, Engrossing and Copying Clerk	-	106 - -	
Garrett Moore - ditto	-	166 - -	
Robert F. Williams - ditto	-	98 - -	
Matthew Caffrey - ditto	-	115 - -	
Charles F. Connolly - ditto - (paid in England)	7 & 8 V. c. 107 -	44 - -	
William Gorman Williams, Clerk in the Master's Office	-	90 - -	
Thomas Ireland, First Clerk to ditto (paid in England)	-	269 - -	
Richard Marlowe, Clerk to Clerk of the Rules	-	100 - -	
Francis Lacy, First Clerk to Pleadings Assistant	-	45 - -	
D. W. Hutcheson, Second ditto	-	109 - -	
John St. John, Clerk for General Purposes	-	165 - -	
			2,786 1 7
COURT of COMMON PLEAS:			
Christopher Carey, Assistant to General Clerk	-	133 8 -	
Richard F. Stack - ditto	7 & 8 V. c. 107 -	97 4 -	
Samuel Hill, Searching Clerk	-	227 1 -	
			457 13 -
	Carried forward - - - £.		629,344 2 10

DETAILED STATEMENT of Amount issued for Courts of Justice Salaries, &c.—*continued.*

To Whom Payable.	By what Acts Granted.	Amounts Issued for Payment.	
		£. s. d.	£. s. d.
Brought forward		- -	629,344 2 10
IRELAND—*continued.*			
Compensations—*continued.*			
COURT of EXCHEQUER:			
Edmond Power, Filacer		738 9 –	
William H. Harte, Clerk of Appearances		276 18 4	
George Farran, Principal Assistant Clerk to Clerk of the Pleas (to 22 May 1876)		135 9 11	
Richard Carey, Assistant to Filacer		262 10 –	
Richard Patten Meares, Assistant to General Clerk		141 4 –	
A. J. Flood, Clerk in Clerk of the Pleas Office		39 – –	
Joseph Davis, Crier at Nisi Prius	7 & 8 V. c. 107	64 – –	
William Woodlock, Registrar of Decrees		100 – –	
Lewis Harty, Engrossing and Copying Clerk		44 – –	
Joseph Francis - - ditto		20 – –	
Maunsell W. Bedford - ditto		90 – –	
George C. Shaw - - ditto		44 – –	
Henry A. Cooper - - ditto		34 – –	
John James Cogan - - ditto - - (paid in England)		54 – –	
			2,043 11 3
COURT of ADMIRALTY:			
Thomas F. Kelly, LL.D., late Judge (to 30 October)	30 & 31 V. c. 114	- -	403 14 8
TOTAL AMOUNT issued for COURTS of JUSTICE - - -		£.	631,791 8 9

[*Estimated Charge of the above for the Year 1877–78*, £. 650,000.]

MISCELLANEOUS SERVICES.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for Payment of MISCELLANEOUS SERVICES charged on the CONSOLIDATED FUND.

	AMOUNTS ISSUED FOR PAYMENT.	
	£. s. d.	£. s. d.
Interest and Sinking Fund of Russian-Dutch Loan, per Acts 55 G. 3, c. 115, and 2 & 3 W. 4, c. 81	- - -	61,913 13 9
Towards the support of Greenwich Hospital, per Act 32 & 33 V. c. 44	- - -	4,000 - -
Secret Service, formerly charged on the Civil List, per Act 1 V. c. 2	- - -	10,000 - -
Receiver General of the Duchy of Lancaster, Annuity in lieu of Prisage and Butlerage on Wines imported into the Ports of that County, per Act 2 & 3 W. 4, c. 84	803 - -	
Receiver General of the Duchy of Cornwall, Compensation for loss of Duties on the Coinage of Tin, per Act 1 & 2 V. c. 120	16,216 15 -	
Compensation to sundry persons for the loss of their Offices on the abolition of the Duties on the Coinage of Tin, per Act 1 & 2 V. c. 120	85 - -	
		17,104 15 -
In aid of the Cash Balance of the Accountant General of the Court of Chancery, per Act 32 & 33 V. c. 91		—
In aid of the Cash Balance of the Accountant in Bankruptcy, per Act 32 & 33 V. c. 91		50,000 - -
TOTAL for MISCELLANEOUS SERVICES, Ordinary		143,018 8 9
Localisation of the Military Forces, per Act 35 & 36 V. c. 68		900,000 - -
TOTAL AMOUNT issued for MISCELLANEOUS SERVICES (including Localisation of the Military Forces)	£.	1,043,018 8 9

[*Estimated Charge of the above (exclusive of Localisation of the Military Forces and Fortifications), for the Year 1877-78,* £. 131,750.]

SUPPLY SERVICES.

DETAILED STATEMENT of the Amount issued from the Exchequer, in the Year ended 31st March 1877, for SUPPLY SERVICES; showing also the Amounts of the several GRANTS for those SERVICES (including the Balances of Grants for former Years), the Surplus Balances written off in the Year, and the Balances remaining unissued at the end of the Year.

SERVICES.	GRANTS.				Total Issues in the Year.	Surplus Balances written off.		Balances of Grants unissued on 31st March 1877.
	Balances from former Years.	For the Year 1876-77, (including Supplemental Grants).	For Deficiencies of Grants of former Years.	TOTAL.		Out of Grants of	Amount.	
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.	£. s. d.
ARMY	- - -	15,421,600 - -	- - -	15,421,600 - -	15,251,354 18 3	- -	- - -	170,245 1 9
CHARGES defrayed by the WAR OFFICE on account of India	- - -	170,000 - -	- - -	170,000 - -	170,000 - -	—	—	—
NAVY	- - -	11,296,872 - -	75,511 2 3	11,372,383 2 3	11,364,383 2 3	- -	- - -	8,000 - -
TOTAL, ARMY and NAVY	- - -	26,888,472 - -	75,511 2 3	26,963,983 2 3	26,785,738 - 6	- -	- - -	178,245 1 9
ARMY PURCHASE COMMISSION	130,000 - -	514,200 - -	- - -	644,200 - -	498,362 - 1	1875-76	105,000 - -	—
VOTE OF CREDIT—ASHANTEE EXPEDITION	3,200 - -	- - -	2,017 5 -	5,217 5 -	2,017 5 -	1876-77	40,837 19 11	
						1875-76	3,200 - -	—
TOTALS, NAVAL and MILITARY SERVICES, &c. £.	133,200 - -	27,402,672 - -	77,528 7 3	27,613,400 7 3	27,286,117 5 7	- -	149,037 19 11	178,245 1 9
CIVIL SERVICES.								
CLASS I.								
PUBLIC WORKS and BUILDINGS.								
GREAT BRITAIN:								
Royal Palaces	- - -	32,303 - -	- - -	32,303 - -	31,580 16 5	1876-77	722 3 7	—
Royal Parks and Pleasure Gardens	- - -	114,105 - -	- - -	114,105 - -	105,931 - -	- „ -	8,174 - -	—
Public Buildings	- - -	148,275 - -	- - -	148,275 - -	139,998 7 8	- „ -	8,276 12 4	—
Furniture of Public Offices	- - -	20,440 - -	- - -	20,440 - -	19,533 8 11	- „ -	906 11 1	—
New Palace at Westminster, Acquisition of Lands	- - -	2,600 - -	- - -	2,600 - -	2,054 14 3	- „ -	545 5 9	—
Houses of Parliament (Buildings)	- - -	34,509 - -	- - -	34,509 - -	33,744 7 10	- „ -	764 12 2	—
New Home and Colonial Offices (Buildings)	- - -	8,884 - -	- - -	8,884 - -	-	- „ -	8,884 - -	—
Sheriff Court Houses, Scotland	- - -	11,506 - -	- - -	11,506 - -	6,620 4 9	- „ -	4,885 15 3	—
National Gallery (Enlargement)	- - -	4,074 - -	- - -	4,074 - -	3,710 8 -	- „ -	363 12 -	—
Natural History Museum (Buildings)	- - -	80,000 - -	- - -	80,000 - -	32,933 - 2	- „ -	17,066 19 10	30,000 - -

Burlington House	-	-	2,545	-	-	2,545	—	—
Edinburgh Arboretum	-	-	4,900	-	-	4,900	- - -	4,900
Post Office and Inland Revenue Buildings	10,000	-	173,718	-	-	183,718	144,536 19 5	1875-76 10,000 - - / 1876-77 12,181 - 7	17,000
British Museum (Buildings)	-	-	14,073	-	-	14,073	10,159 7 2	1876-77 3,913 12 10	—
County Courts (Buildings)	-	-	56,050	-	-	56,050	31,841 3 3	1876-77 14,208 16 9	10,000
Science and Art Department (Buildings)	-	-	8,343	-	-	8,343	4,780 5 8	" 3,562 14 4	—
Surveys of United Kingdom	-	-	132,500	3,331 3 3		135,831 3 3	—	—	—
Harbours, &c., under Board of Trade	-	-	10,705	-	-	10,705	10,571 1 7	1876-77 133 18 5	—
Metropolitan Fire Brigade	-	-	10,000	-	-	10,000	—	—	—
Rates on Government Property	-	-	233,991	-	-	243,991	170,539 10 4	1875-76 10,000 - - / 1876-77 38,451 9 8	25,000
Wellington Monument	-	-	1,151	-	-	1,151	- - -	1876-77 1,151 - -	—
New Courts of Justice	-	-	121,300	-	-	121,300	117,629 7 2	" 3,670 12 10	—
Ramsgate Harbour	-	-	2,351	-	-	2,351	2,351 - -	—	—
Metropolitan Police Courts	-	-	20,644	-	-	20,644	9,359 - 3	1876-77 4,284 19 9	7,000
Purchase of Winchester House	-	-	47,000	-	-	47,000	47,000 - -	—	—
Public Offices Site	-	-	69,400	-	-	69,400	69,177 1 3	1876-77 222 18 9	—
IRELAND:									
Public Buildings	-	-	174,922	-	-	174,922	155,000 - -	1876-77 426 5 3	19,495 14 9
ABROAD:									
Lighthouses Abroad	-	-	18,660	931 12 3		19,591 12 3	19,591 12 3	—	—
British Embassy Houses and Consular and Legation Buildings	-	-	5,000	66,510	-	71,510	41,510 - -	1876-77 2,463 15 9	27,536 4 3
TOTALS, CLASS I.	£.		25,000	1,625,459 - -	4,262 15 6	1,654,721 15 6	1,358,528 19 7	- -	155,260 16 11	140,931 19 -
CLASS II.									
PUBLIC DEPARTMENTS.									
ENGLAND:									
House of Lords Offices	-	-	43,489	-	-	43,489	42,489 - -	1876-77 1,000 - -	—
House of Commons Offices	-	-	50,006	-	-	50,006	45,006 - -	" 3,021 14 1	1,978 5 11
Treasury, &c.	-	-	58,710	26 12 8		58,736 12 8	58,736 12 8	—	—
Home Office, &c.	-	-	90,178	-	-	90,178	89,908 17 2	1876-77 269 2 10	—
Foreign Office	-	-	74,006	83 14 10		74,089 14 10	74,089 14 10	—	—
Colonial Office	-	-	35,581	318 9 3		35,899 9 3	35,899 9 3	—	—
Privy Council Office, &c.	-	-	37,243	-	-	37,243	35,963 7 -	1876-77 1,279 13 -	—
Board of Trade, &c.	-	-	161,754	7,751 16 11		169,505 16 11	169,505 16 11	—	—
Privy Seal Office	-	-	2,773	-	-	2,773	2,173 - -	1876-77 - 6 2	599 13 10
Charity Commission	-	-	33,500	-	-	33,500	31,993 5 -	- - 1,506 15 -	—
Civil Service Commission	-	-	23,743	326 19 10		24,069 19 10	24,069 19 10	—	—
Copyhold, Inclosure, and Tithe Commission	-	-	18,619	-	-	18,619	17,850 7 3	1876-77 768 12 9	—
Inclosure and Drainage Acts Expenses	-	-	8,600	-	-	8,600	7,363 18 8	" 1,236 1 4	—
Exchequer and Audit Department	-	-	46,065	-	-	46,065	44,428 19 2	" 1,636 - 10	—
Register Office, General	-	-	45,911	-	-	45,911	45,873 10 9	" 37 9 3	—
Carried forward	£.		730,178 - -	8,507 13 6	738,685 13 6	725,351 18 6	- -	10,755 15 3	2,577 19 9

DETAILED STATEMENT of Amount issued for Supply Services—*continued.*

SERVICES.	GRANTS. Balances from former Years.	GRANTS. For the Year 1876-77, (including Supplemental Grants).	GRANTS. For Deficiencies of Grants of former Years.	GRANTS. TOTAL.	Total Issues in the Year.	Surplus Balances written off. Out of Grants of	Surplus Balances written off. Amount.	Balances of Grants unissued on 31st March 1877.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.	£. s. d.
Brought forward	- - -	730,178 - -	8,507 13 6	738,685 13 6	725,351 18 6	- -	10,755 15 3	2,577 19 9
CIVIL SERVICES—*continued.*								
Class II.—Public Departments—*continued.*								
Local Government Board	- - -	703,287 - -	- - -	703,287 - -	703,204 13 1	1876-77	82 6 11	—
Lunacy Commission	- - -	15,026 - -	- - -	15,026 - -	14,591 - 1	- „ -	434 19 11	—
Mint	- - -	58,950 - -	- - -	58,950 - -	58,597 7 11	- „ -	352 12 1	—
National Debt Office	- - -	17,334 - -	- - -	17,334 - -	16,017 16 5	- „ -	617 18 3	698 5 4
Patent Office, &c.	- - -	23,875 - -	- - -	23,875 - -	23,741 16 7	- „ -	133 3 5	—
Paymaster General's Department	- - -	23,651 - -	- - -	23,651 - -	23,333 4 2	- „ -	317 15 10	—
Public Record Office	- - -	22,509 - -	- - -	22,509 - -	21,147 12 10	- „ -	1,361 7 2	—
Public Works Loan Commission, &c.	- - -	9,600 - -	- - -	9,600 - -	9,383 14 10	- „ -	216 5 2	—
Registrars of Friendly Societies	- - -	5,368 - -	- - -	5,368 - -	5,264 16 11	- „ -	103 3 1	—
Stationery Office and Printing	- - -	489,635 - -	- - -	489,635 - -	489,060 3 10	- „ -	574 16 2	—
Woods, Forests, &c., Office of	- - -	26,284 - -	- - -	26,284 - -	24,785 4 5	- „ -	1,498 15 7	—
Works and Public Buildings, Office of	- - -	38,865 - -	- - -	38,865 - -	36,157 17 4	- „ -	2,707 2 8	—
Secret Service	- - -	24,000 - -	- - -	24,000 - -	14,000 - -	- „ -	10,000 - -	—
SCOTLAND:								
Exchequer and other Offices	- - -	6,225 - -	- - -	6,225 - -	4,571 1 10	1876-77	281 14 6	1,372 3 8
Fishery Board	- - -	12,672 - -	- - -	12,672 - -	7,447 6 3	- „ -	21 19 6	5,202 14 3
Register Office, General	- - -	6,665 - -	- - -	6,665 - -	4,381 19 2	- „ -	15 5 5	2,267 15 5
Lunacy Commission	- - -	5,705 - -	- - -	5,705 - -	5,175 10 11	- „ -	510 7 7	19 1 6
Board of Supervision, &c.	- - -	82,783 - -	- - -	82,783 - -	79,865 12 10	- „ -	2,504 18 6	412 8 8
IRELAND:								
Lord Lieutenant's Household	- - -	6,992 - -	4 5 11	6,996 5 11	6,996 5 11	—	—	—
Chief Secretary's Office	- - -	27,530 - -	- - -	27,530 - -	27,513 - 1	1876-77	16 19 11	—
Boundary Survey	- - -	460 - -	- - -	460 - -	398 2 7	- „ -	61 17 5	—
Charitable Donations and Bequests Office	- - -	2,058 - -	- - -	2,058 - -	1,980 1 5	- „ -	77 18 7	—
Register Office, General	- - -	18,237 - -	- - -	18,237 - -	17,997 6 10	- „ -	239 13 2	—
Local Government Board	- - -	126,292 - -	- - -	126,292 - -	123,992 16 8	- „ -	2,299 3 4	—
Public Record Office, &c.	- - -	6,050 - -	18 15 3	6,068 15 3	6,068 15 3	—	—	—
Public Works Office	- - -	28,675 - -	- - -	28,675 - -	28,605 9 9	1876-77	69 10 3	—
Pauper Lunatics	- - -	78,000 - -	- - -	78,000 - -	78,000 - -	—	—	—
General Survey and Valuation	- - -	21,550 - -	- - -	21,550 - -	20,493 3 10	1876-77	1,056 16 2	—
TOTALS, CLASS II. £.	- - -	2,618,456 - -	8,530 14 8	2,626,986 14 8	[illegible] - 3	- -	36,312 5 10	12,550 8 7

CLASS III.

LAW and JUSTICE.

ENGLAND:								
Law Charges	-	68,461	-	68,461	65,494 9 9	1876-77	2,966 10 3	—
Criminal Prosecutions, &c.	-	179,848	-	179,848	177,213 3 8	- „ -	2,634 16 4	—
Chancery Division, High Court of Justice	-	173,025	-	173,025	171,318 4 4	- „ -	1,706 15 8	—
Queen's Bench, &c. Divisions, High Court of Justice	-	66,486	-	66,486	60,079 19 4	- „ -	2,406 - 8	4,000 - -
Probate and Divorce Registries, High Court of Justice	-	92,041	-	92,041	88,041 - -	- „ -	1,006 5 9	2,993 14 3
Admiralty Registry, High Court of Justice	-	13,084	-	13,241 19 9	13,241 19 9	—	—	—
London Bankruptcy Court	-	48,585	-	48,585 - -	40,806 2 10	1876-77	7,778 17 2	—
County Courts	10,000 - -	440,678	-	463,496 9 8	463,496 9 8	—	—	—
Land Registry Office	-	5,414	-	5,436 - 2	5,436 - 2	—	—	—
Police Courts (London and Sheerness)	-	14,240	-	14,240 - -	13,388 1 2	1876-77	851 18 10	—
Metropolitan Police	-	433,374	-	433,374 - -	421,683 8 5	- „ -	11,690 11 7	—
Police Counties and Boroughs (Great Britain)	-	826,590	-	826,590 - -	824,279 5 3	- „ -	2,310 14 9	—
Convict Establishments, England and the Colonies	-	440,745	-	443,768 - 4	433,768 - 4	- - -	- - -	10,000 - -
County Prisons, &c. (Great Britain)	-	101,187	-	101,187 - -	100,110 16 2	1876-77	1,076 3 10	—
Reformatory and Industrial Schools (Great Britain)	-	232,397	-	232,397 - -	231,030 4 -	- „ -	1,366 16 -	—
Broadmoor Criminal Lunatic Asylum	-	29,484	-	29,484 - -	28,579 9 5	- „ -	904 10 7	—
Miscellaneous Legal Charges	-	18,690	-	18,690 - -	18,690 - -	—	—	—
Wreck Commissioner's Office	-	1,790	-	1,790 - -	1,790 - -	—	—	—
SCOTLAND:								
Lord Advocate and Criminal Proceedings	-	69,389	-	69,389 - -	37,501 4 7	1876-77	5,927 18 11	25,959 16 6
Courts of Law and Justice	6 11 10	59,527	-	59,533 11 10	54,000 - -	- „ -	3,252 14 -	2,280 17 10
Register House Departments	40 6 1	34,189	-	34,229 6 1	25,300 - -	- „ -	17 11 -	8,911 15 1
Prisons and Judicial Statistics	97 16 2	24,189	-	24,286 16 2	22,400 - -	- „ -	1,504 4 6	382 11 8
IRELAND:								
Law Charges and Criminal Prosecutions	-	80,453	-	6,428 16 2 86,881 16 2	86,881 16 2	—	—	—
Court of Chancery	-	42,196	-	42,196 - -	40,418 8 -	1876-77	1,777 12 -	—
Common Law Courts	-	28,901	-	497 3 11 29,398 3 11	29,398 3 11	—	—	—
Court of Bankruptcy	-	9,619	-	104 10 5 9,723 10 5	9,723 10 5	—	—	—
Landed Estates Court	-	12,283	-	12,283 - -	11,995 1 6	1876-77	287 18 6	—
Probate Court	-	11,530	-	11,530 - -	11,156 4 4	- „ -	373 15 8	—
Admiralty Court Registry	-	1,700	-	1,700 - -	1,663 15 7	- „ -	36 4 5	—
Registry of Deeds	-	18,460	-	18,460 - -	18,434 19 1	- „ -	25 - 11	—
Registry of Judgments	-	3,060	-	3,060 - -	2,972 14 3	- „ -	87 5 9	—
Dublin Metropolitan Police	-	136,975	-	136,975 - -	133,889 - 1	- „ -	3,085 19 11	—
Constabulary	-	1,086,168	-	1,086,168 - -	1,051,604 - 3	- „ -	34,563 19 9	—
Government Prisons, &c.	-	40,540	-	40,540 - -	39,048 4 6	- „ -	1,491 15 6	—
County Prisons and Reformatories	-	90,768	-	90,768 - -	90,768 - -	—	—	—
Dundrum Criminal Lunatic Asylum	-	6,165	-	6,165 - -	6,011 - 5	1876-77	153 19 7	—
Miscellaneous Legal Charges	-	69,666	-	69,666 - -	68,632 18 5	- „ -	1,033 1 7	—
TOTALS, CLASS III. - - - £.	10,144 14 1	5,011,897	- -	23,052 - 5	5,045,093 14 6	4,900,245 15 9	—	90,319 3 5	54,528 15 4

DETAILED STATEMENT of Amount issued for Supply Services—*continued.*

SERVICES.	GRANTS. Balances from former Years.	GRANTS. For the Year 1876-77, (including Supplemental Grants).	GRANTS. For Deficiencies of Grants of former Years.	GRANTS. TOTAL.	Total Issues in the Year.	Surplus Balances written off. Out of Grants of	Surplus Balances written off. Amount.	Balances of Grants unissued on 31st March 1877.
CIVIL SERVICES—*continued.* CLASS IV. EDUCATION, SCIENCE, and ART.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.	£. s. d.
ENGLAND:								
Public Education, England and Wales	- - -	1,707,055 - -	- - -	1,707,055 - -	1,677,101 16 11	1876-77	15,953 3 1	14,000 - -
Science and Art Department (United Kingdom)	- - -	303,673 - -	- - -	303,673 - -	302,655 16 8	- „ -	1,017 3 4	—
British Museum	- - -	108,947 - -	- - -	108,947 - -	106,903 10 3	- „ -	2,043 9 9	—
National Gallery	- - -	11,898 - -	- - -	11,898 - -	11,527 2 9	- „ -	370 17 3	—
National Portrait Gallery	- - -	2,000 - -	- - -	2,000 - -	1,942 3 4	- „ -	57 16 8	—
Learned Societies, &c. (United Kingdom)	- - -	15,550 - -	- - -	15,550 - -	15,550 - -	—	—	—
University of London	- - -	10,310 - -	- - -	10,310 - -	10,310 - -	—	—	—
Paris International Maritime Exhibition	- - -	800 - -	- - -	800 - -	800 - -	—	—	—
Arctic Expedition	- - -	550 - -	- - -	550 - -	522 9 3	1876-77	27 10 9	—
SCOTLAND:								
Public Education	- - -	438,227 - -	- - -	438,227 - -	420,778 11 2	1876-77	12,448 8 10	5,000 - -
Board of Education	- - -	5,707 - -	- - -	5,707 - -	1,775 11 5	- „ -	1,437 9 3	2,493 19 4
Universities, &c.	- - -	18,554 - -	103 10 5	18,657 10 5	9,515 6 8	- „ -	- - -	9,142 3 9
National Gallery, &c.	- - -	2,100 - -	- - -	2,100 - -	—	—	—	—
IRELAND:								
Public Education	55,905 5 10	645,949 - -	- - -	701,854 5 10	600,000 - -	1875-76 / 1876-77	55,905 5 10 / 8,815 3 11	37,133 16 1
Commissioners of Education (Endowed Schools)	- - -	640 - -	- - -	640 - -	597 19 -	1876-77	42 1 -	—
National Gallery	- - -	2,339 - -	- - -	2,339 - -	1,977 8 4	- „ -	122 11 8	239 - -
Royal Irish Academy	- - -	2,481 - -	- - -	2,481 - -	2,481 - -	—	—	—
Queen's University	- - -	4,787 - -	- - -	4,787 - -	4,681 9 6	1876-77	105 10 6	—
Queen's Colleges	- - -	11,822 - -	- - -	11,822 - -	11,699 16 6	- „ -	122 3 6	—
TOTALS, CLASS IV. - - - £.	55,905 5 10	3,293,389 - -	103 10 5	3,349,397 16 3	3,182,920 1 9	- -	98,468 15 4	68,008 19 2
CLASS V. FOREIGN, CONSULAR, and COLONIAL SERVICES, &c.								
Diplomatic Services	- - -	250,013 - -	- - -	250,013 - -	249,318 13 -	1876-77	694 7 -	—
Consular Services	- - -	245,896 - -	- - -	245,896 - -	221,750 10 1	- „ -	4,145 9 11	20,000 - -
Colonies, Grants in Aid, &c.	- - -	121,664 - -	24 3 8	121,688 3 8	121,688 3 8	—	—	—
Orange River Territory and St. Helena	- - -	3,190 - -	- - -	3,190 - -	2,834 - 11	1876-77	355 19 1	—
Slave Trade, Commissions for Suppression of	- - -	34,222 - -	- - -	34,222 - -	31,113 2 7	- „ -	3,108 17 5	—

Tonnage Bounties, &c.	35,707	1,076 1 10	36,783 1 10	36,783 1 10	—	—	—
Emigration	4,917	—	4,917	4,412 11 4	1876-77	504 8 8	—
Treasury Chest	2,000	—	2,000	—	„	2,000	—
Mr. Cave's Mission to Egypt	3,200	—	3,200	3,200	—	—	—
Suez Canal (British Directors)	9,200	—	9,200	8,043 15 —	—	—	1,156 5 —
TOTALS, CLASS V. £.	710,009	1,100 5 6	711,109 5 6	679,143 18 5	—	10,809 2 1	21,156 5 —
CLASS VI.							
SUPERANNUATIONS, &c.							
Superannuations and Retired Allowances	446,210	—	446,210	443,106 13 7	1876-77	3,103 6 5	—
Merchant Seamen's Fund, Pensions, &c.	34,900	—	34,900	33,796 — 1	„	1,103 19 11	—
Relief of Distressed British Seamen	33,000	—	33,000	26,220 19 2	„	1,779 — 10	5,000
Hospitals and Infirmaries, Ireland	18,493	—	18,493	18,400	„	93	—
Miscellaneous Charitable Allowances, &c., Great Britain	4,538	—	4,538	4,362 3 9	„	175 16 3	—
Miscellaneous Charitable Allowances, &c., Ireland	4,826	—	4,826	4,799 — 6	„	26 19 6	—
Duke of Leeds' Pension Commutation	29,101	—	29,101	29,101	—	—	—
TOTALS, CLASS VI. £.	571,068	—	571,068	559,785 17 1	—	6,282 2 11	5,000
CLASS VII.							
MISCELLANEOUS and SPECIAL SERVICES.							
Temporary Commissions	54,401	—	54,401	50,062 9 4	1876-77	4,338 10 8	—
Deep Sea Exploring Expedition	2,930	—	2,930	1,930	„	163 14 4	836 5 8
Miscellaneous Expenses	7,066	—	7,066	5,684 5 8	„	1,381 14 4	—
Ashantee Expedition, Gratuities, &c.	1,820	—	1,820	—	„	1,820	—
Mediterranean Extension Telegraph Company	6,498	—	6,498	6,498	—	—	—
Repayments to Civil Contingencies Fund	10,908	—	10,908	10,894 12 8	1876-77	13 7 4	—
TOTALS, CLASS VII. £.	83,623	—	83,623	75,069 7 8	—	7,717 6 8	836 5 8
TOTALS, CIVIL SERVICES, CLASSES I., II., III., IV., V., VI., and VII. £.	91,049 19 11	13,913,901 —	37,049 6 6	14,042,000 6 5	13,333,818 — 6	405,169 13 2	303,012 12 9
Expenses of Purchase of Suez Canal Shares	3,434 14 4	—	—	3,434 14 4	33 4 5	1875-76	3,401 9 11	—
TOTAL for CIVIL SERVICES (including Expenses of Purchase of Suez Canal Shares) £.	94,484 14 3	13,913,901 —	37,049 6 6	14,045,435 — 9	13,333,851 4 11	—	408,571 3 1	303,012 12 9

DETAILED STATEMENT of Amount issued for Supply Services—*continued.*

SERVICES.	GRANTS. Balances from former Years.	GRANTS. For the Year 1876-77, (including Supplemental Grants).	GRANTS. For Deficiencies of Grants of former Years.	GRANTS. TOTAL.	Total Issues in the Year.	Surplus Balances written off. Out of Grants of	Surplus Balances written off. Amount.	Balances of Grants unissued on 31st March 1877.
REVENUE DEPARTMENTS, &c.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.	£. s. d.
Customs	252,148 5 10	998,530 - -	- - -	1,250,678 5 10	988,282 17 11	1875-76 1876-77	7,457 5 10 27 7 4	254,910 14 9
Inland Revenue	445,671 18 2	1,785,304 - -	5,324 13 -	2,236,300 11 2	1,777,996 11 2	- -	- - -	458,304 - -
					2,766,279 9 1			
Post Office	791,217 11 8	3,187,406 - -	- - -	3,978,623 11 8	3,159,218 - 8	1875-76	17,999 11 -	801,406 - -
Telegraph Service	69,785 15 6	1,161,148 - -	- - -	1,230,933 15 6	1,141,000 - -	- „ -	66,190 7 3	23,743 8 3
Packet Service	- - -	851,930 - -	- - -	851,930 - -	850,889 6 2	1876-77	1,040 13 10	—
TOTALS, REVENUE DEPARTMENTS, &c. £.	1,558,823 11 2	7,984,318 - -	5,324 13 -	9,548,466 4 2	7,917,386 15 11	- -	92,715 5 3	1,538,364 3 -
ADVANCES for GREENWICH HOSPITAL and SCHOOL	29,088 - -	145,752 - -	- - -	174,840 - -	143,049 1 8	1876-77	2,638 18 4	29,152 - -
EXCHEQUER BONDS, PRINCIPAL	- - -	700,000 - -	- - -	700,000 - -	700,000 - -	—	—	—

SUMMARY OF THE FOREGOING DETAILS.

NAVAL and MILITARY SERVICES	- - -	26,888,472 - -	75,511 2 3	26,963,983 2 3	26,785,738 - 6	- -	- - -	178,245 1 9
ARMY PURCHASE COMMISSION	130,000 - -	514,200 - -	- - -	644,200 - -	498,362 - 1	- -	145,837 19 11	—
VOTE of CREDIT, ASHANTEE EXPEDITION	3,200 - -	- - -	2,017 5 -	5,217 5 -	2,017 5 -	- -	3,200 - -	—
CIVIL SERVICES (including Expenses of Purchase of Shares in the Suez Canal)	94,484 14 3	13,913,901 - -	37,049 6 6	14,045,435 - 9	13,333,851 4 11	- -	408,571 3 1	303,012 12 9
REVENUE DEPARTMENTS, &c.	1,558,823 11 2	7,984,318 - -	5,324 13 -	9,548,466 4 2	7,917,386 15 11	- -	92,715 5 3	1,538,364 3 -
ADVANCES for GREENWICH HOSPITAL and SCHOOL	29,088 - -	145,752 - -	- - -	174,840 - -	143,049 1 8	- -	2,638 18 4	29,152 - -
PRINCIPAL of EXCHEQUER BONDS	- - -	700,000 - -	- - -	700,000 - -	700,000 - -	—	—	—
TOTALS, SUPPLY SERVICES £.	1,815,596 5 5	50,146,643 - -	119,902 6 9	52,082,141 12 2	49,380,404 3 1	- -	652,963 6 7	2,048,773 17 6

DETAILED STATEMENT of Amount issued for Supply Services—*continued.*

The ISSUES for SUPPLY SERVICES in the YEAR 1876-77, as shown in the foregoing STATEMENT, were made out of the following GRANTS.

SERVICES.	Supply Grants of 1875-76.	Supply Grants of 1876-77. (Including Supplemental Grants, and Grants for Deficiencies.)	TOTAL ISSUES.
	£. s. d.	£. s. d.	£. s. d.
ARMY	- - -	15,251,354 18 3	15,251,354 18 3
CHARGE defrayed by the WAR OFFICE on account of INDIA	- - -	170,000 - -	170,000 - -
ARMY PURCHASE COMMISSION	25,000 - -	473,362 - 1	498,362 - 1
NAVY	- - -	11,364,383 2 3	11,364,383 2 3
VOTE of CREDIT, ASHANTEE EXPEDITION	- - -	2,017 5 -	2,017 5 -
CIVIL SERVICES (including 33 *l.* 4 *s.* 5 *d.* (out of 1875-76) for Expenses of Purchase of Shares in the SUEZ CANAL, which formerly belonged to the KHEDIVE of EGYPT)	15,177 18 6	13,318,673 6 5	13,333,851 4 11
REVENUE DEPARTMENTS, &c., viz.:			
Customs and Inland Revenue	690,362 18 2	2,075,916 10 11	2,766,279 9 1
Post Office	773,218 - 8	2,386,000 - -	3,159,218 - 8
Telegraph Service	3,595 8 3	1,137,404 11 9	1,141,000 - -
Packet Service	- - -	850,889 6 2	850,889 6 2
£.	1,507,354 5 7	47,030,001 - 10	48,537,355 6 5
ADVANCES for GREENWICH HOSPITAL and SCHOOL	29,088 - -	113,961 1 8	143,049 1 8
EXCHEQUER BONDS (Principal)	- - -	700,000 - -	700,000 - -
TOTAL AMOUNT issued for SUPPLY SERVICES £.	1,536,442 5 7	47,843,962 2 6	49,380,404 8 1

DETAILED STATEMENT of Amount issued for Supply Services—*continued.*

WAYS AND MEANS GRANTS.

MEMORANDUM of the application of the Balances of the Grants of Ways and Means remaining unissued on 1st April 1876, and of the Grants for the Year 1876–77.

	£. s. d.	£. s. d.
Balance, on 1st April 1876, of Grants for the Year 1875–76		1,815,596 5 5
Amount of Grants out of the Consolidated Fund in the Year 1876–77, viz.:—	£. s. d.	
Per Act 39 Vict. c. 4 (1876)	9,000,000 – –	
„ 39 Vict. c. 15 (1876)	11,000,000 – –	
„ 39 & 40 Vict. c. 60 (1876)	28,703,043 – –	
„ 40 Vict. c. 1 (1877) } Supplemental and Excess	350,000 – –	
„ 40 Vict. c. 6 (1877) }	1,213,502 6 9	
		50,266,545 6 9
TOTAL	£.	52,082,141 12 2

Deduct,—Amount of Issues for Supply Services, and Surplus Balances written off in the Year (as per preceding Statement) out of the Ways and Means Grants of the undermentioned Years, viz.:—

	1875–76.			1876–77.			
	£.	s.	d.	£.	s.	d.	
Issues	1,536,442	5	7	47,843,962	2	6	
Surplus Balances written off	279,153	19	10	373,809	6	9	
£.	1,815,596	5	5	48,217,771	9	3	50,033,367 14 8
Balance of Ways and Means Grants of 1876–77, on 31st March 1877 (equal to Balance of Grants in Supply, as detailed on pages 66 to 72) £.							2,048,773 17 6

STATEMENTS

RELATIVE TO THE

NATIONAL DEBT.

	Page.
Application of Sinking Funds to Reduction of Debt - - -	77
Funded Debt Created and Redeemed in the Year, &c. - - -	78 & 79
State of the same on 31st March 1877 - - - - - - -	80 to 82
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Explanatory Statement of Amount Issued from the Exchequer for Management of Debt - - - - - - - - - - -	84

SINKING FUNDS.

(Under 38 & 39 Vict. c. 45.)

DETAILED STATEMENT of the Amount issued from the Exchequer in the Year ended 31st March 1877, on account of the OLD and NEW SINKING FUNDS; and of the Application of the same by the Commissioners for the Reduction of the National Debt.

I.—ISSUES from the CONSOLIDATED FUND:	£. s. d.
Old Sinking Fund	Nil.
New Sinking Fund:	
Amount issued under the Act 38 & 39 Vict. c. 45, s. 3, for the year to 31st March 1877	624,780 6 7
Sinking Fund Annuity, per Act 33 & 34 Vict. c. 71, s. 69—On New £. 2½ per Cent. Annuities for the year to 5th July 1876	6,906 14 7
TOTAL AMOUNT issued from the Exchequer £.	631,687 1 2

II.—APPLICATION of the above TOTAL AMOUNT:

	Amount applied to the Reduction of Debt.	Amount and Nature of Capital Debt purchased therewith and Cancelled.		Average Price of Stock Cancelled.
	£. s. d.	£. s. d.	FUNDED DEBT:	£. s. d.
	200,000 – –	207,253 17 9	Consolidated £.3 per Cents.	96 10 –
	11,445 – –	12,000 – –	Reduced „	95 7 6
	74,355 – –	78,000 – –	New „	95 6 6
	6,906 14 7	8,742 13 11	New £. 2½ „	79 – –
£.	292,706 14 7	305,996 11 8		
Balance unapplied at 31 March 1877	338,980 6 7			
TOTAL £.	631,687 1 2			

National Debt Office,
7 June 1877.

C. Rivers Wilson,
Comptroller General.

FUNDED DEBT.

AN ACCOUNT of the Total Amount of the FUNDED DEBT of the United Kingdom, in the Year ended the 31st March 1877, of the Debt and Charge reduced in that on the 31st March 1877.

	CAPITAL STOCK.	RATE per Cent.	ANNUAL CHARGE.
TOTAL DEBT on 31st March 1876:	£. s. d.		£. s. d.
FUNDED DEBT	713,657,517 8 7		21,389,835 19 10
TERMINABLE ANNUITIES:			
Annuities, per 18 Vict. c. 18, expiring 5th April 1885			116,000 – –
Annuities, per 23 & 24 Vict. c. 109, and subsequent Acts, expiring 5th April 1885. (Fortifications.)			575,291 – –
Annuity, per 26 Vict. c. 14, expiring 5th April 1885			9,983 7 3
Annuities, per 32 & 33 Vict. c. 59, and 29 Vict. c. 5, expiring at various dates in 1885 (payable yearly)			3,617,845 – –
Annuities, per 35 & 36 Vict. c. 68, expiring 29th March and 1st August 1885. "The Military Forces Localization Act"			65,486 – –
Red Sea and India Telegraph Company's Annuity, 25 & 26 Vict. c. 39, expiring 4th August 1908			36,000 – –
Sinking Fund Annuity on New £. 2½ per Cents., per 33 & 34 Vict. c. 71, s. 69			6,906 14 7
Annuities for Terms of Years, per 10 Geo. 4, c. 24, and 3 Will. 4, c. 14, expiring at various periods			41,401 12 –
Life Annuities, per 10 Geo. 4, c. 24, 3 Will. 4, c. 14, 16 & 17 Vict. c. 45, and 27 & 28 Vict. c. 43			914,043 6 6
Exchequer Tontine Annuities, per 29 Geo. 3			13,092 1 1
MANAGEMENT { Great Britain £. 212,144 1 3 / Ireland 9,749 19 6 }			221,894 – 9
Total Amount of Funded Debt and Charge on 31st March 1876 £.	713,657,517 8 7		27,007,779 2 –
DEBT CREATED in the Year ended 31st March 1877:			
FUNDED DEBT:			
Capital created per Act 36 & 37 Vict. c. 83, "The Telegraph Act, 1873"	77,152 2 11	3 p'Cent.	2,314 11 3
Capital created per Act 39 Vict. c. 5, "The Telegraph (Money) Act, 1876"	207,253 17 9	3 p'Cent.	6,217 12 4
TERMINABLE ANNUITIES:			
Annuities (expiring 1885) granted per 32 & 33 Vict. c. 76. (Fortifications)	—	—	—
Annuities (expiring 1885) granted per 35 & 36 Vict. c. 68, "The Military Forces Localization Act"			118,272 – –
Annuities for Terms of Years, per 10 Geo. 4, c. 24			1,508 12 6
Life Annuities, per 10 Geo. 4, c. 24, 16 & 17 Vict. c. 45, and 27 & 28 Vict. c. 43			76,118 18 10
TOTAL FUNDED DEBT and CHARGE created in the Year ended 31st March 1877 £.	284,406 – 8		204,431 14 11
TOTAL £.	713,941,923 9 3		27,212,210 16 11

- - - - CAPITALS AND CHARGE.

and the Charge thereof on the 31st March 1876; of the Debt and Charge created Year; and of the Total Amount of the Funded Debt, and the Charge thereof, as it stood

	CAPITAL STOCK.	RATE per Cent.	ANNUAL CHARGE.
DEBT REDUCED in the Year ended 31st March 1877:	£. s. d.		£. s. d.
FUNDED DEBT:			
Capital purchased (New Sinking Fund), per 38 & 39 Vict. c. 45, s. 3 - - - -	297,253 17 9	3 p'Cent.	8,917 12 4
Capital purchased with the Sinking Fund Annuity, per 33 & 34 Vict. c. 71, s. 69 -	8,742 13 11	2½ p'Cent.	218 11 4
Capital purchased on account of Donations and Bequests, per 29 Vict. c. 11, s. 6 -	103 9 11	3 p'Cent.	3 2 1
Capital purchased with Forfeited Deposits in Savings Banks and Post Office Savings Banks - - - - - - - - -	74 - -	3 p'Cent.	2 4 5
Capital purchased with money received in respect of Foreshores, per 29 & 30 Vict. c. 62 - - - - - - - - -	327 8 5	3 p'Cent.	9 16 5
Capital transferred for the purchase of Annuities for Terms of Years, including 9,414*l.* 7*s.* 1*d.* Stock bought with money received for said Annuities - - -	17,983 7 1	3 p'Cent.	539 10 -
Capital transferred for the purchase of Life Annuities, including 635,798*l.* 2*s.* 10*d.* Stock bought with money received for said Annuities - - - - - -	889,083 2 10	3 p'Cent.	26,672 9 11
Capital purchased and transferred for redemption of Land Tax - - - - -	78,901 17 5	3 p'Cent.	2,367 1 1
Capital purchased on account of Surplus Land Tax - - - - - - - -	12,100 - -	3 p'Cent.	363 - -
Capital transferred from the Prothonotary's Fee Fund Account of the County Palatine of Lancaster to the Commissioners for the Reduction of the National Debt, per Act 38 & 39 Vict. c. 77, s. 27 (including 5,242*l.* 14*s.* 9*d.* purchased with money also received from the Account of the above Fund) - - - - - - -	15,998 8 2	3 p'Cent.	479 19 1
TERMINABLE ANNUITIES:			
Annuities for Terms of Years, 10 Geo. 4, c. 24, and 3 Will. 4, c. 14, expired and unclaimed - - - - - - - -	- - -	- -	7,673 8 -
Life Annuities, 10 Geo. 4, c. 24, 3 Will. 4, c. 14, 16 & 17 Vict. c. 45, and 27 & 28 Vict. c. 43, expired and unclaimed - -	- - -	- -	67,926 6 10
Contributors' Shares in Exchequer Tontine Annuities decreased - - - - -	- - -	- -	265 7 6
MANAGEMENT decreased - - - - - -	- - -	- -	189 14 6
TOTAL FUNDED DEBT and CHARGE reduced in the Year ended 31st March 1877 £.	1,320,568 5 6	- -	115,628 3 6
Balance, being the *Total Amount of Funded Debt and Charge*, on 31st March 1877 - -	712,621,355 3 9	- -	26,874,878 7 2
MANAGEMENT - - - - - - - -	- - -	- -	221,704 6 3
TOTAL - - - £.	713,941,923 9 3	- -	27,212,210 16 11

AN ACCOUNT of the State of the PUBLIC FUNDED DEBT of the United Kingdom, on the 31st March 1877.

CAPITAL FUNDED DEBT:	CAPITALS. £. s. d.	ANNUAL CHARGE. £. s. d.
GREAT BRITAIN:		
New Annuities - - - - - at £. 2½ per cent.	3,774,278 9 9	
Exchequer Bonds, created per 16 Vict. c. 23 „ -	418,300 – –	
TOTAL, at £. 2½ per cent. - - - £.	4,192,578 9 9	104,814 9 2
Debt due to the Bank of England - at £. 3 per cent.	11,015,100 – –	
Consolidated Annuities - - - - - „ -	389,069,600 16 11	
Reduced Annuities - - - - - - „ -	94,014,033 16 2	
New Annuities - - - - - - - „ -	179,576,658 6 8	
TOTAL, at £. 3 per cent. - - - £.	673,675,392 19 9	20,210,261 15 9
New Annuities - - - - - at £. 3½ per cent.	225,746 6 4	7,901 2 5
TOTAL, GREAT BRITAIN - - - £.	678,093,717 15 10	20,322,977 7 4
IRELAND:		
New Annuities - - - - - - at £. 2½ per cent.	2,330 – –	58 5 –
Debt due to the Bank of Ireland - - at £. 3 per cent.	2,630,769 4 8	
Consolidated Annuities - - - - - „ -	5,139,119 8 3	
Reduced Annuities - - - - - - „ -	134,126 14 6	
New Annuities - - - - - - - „ -	26,621,292 – 6	
TOTAL, at £. 3 per cent. - - - £.	34,525,307 7 11	1,035,759 4 5
TOTAL, IRELAND - - - £.	*34,527,637 7 11	1,035,817 9 5
TOTAL CAPITAL of the FUNDED DEBT of the UNITED KINGDOM on 31st March 1877, and Charge thereof } £.	†712,621,355 3 9	21,358,794 16 9
Carried forward - - - £.	712,621,355 3 9	21,358,794 16 9

* *See* Note on page 82.

† *See* Note on page 82.

AN ACCOUNT of the State of the Public Funded Debt of the United Kingdom, &c.—*continued.*

	CAPITALS.	ANNUAL CHARGE.
	£. s. d.	£. s. d.
Brought forward - - -	712,621,355 3 9	21,358,794 16 9
TERMINABLE ANNUITIES:		
Annuities, per 18 Vict. c. 18, expiring 5th April 1885 - -	- - -	‡ 116,000 - -
Annuities, per 23 & 24 Vict. c. 109, and subsequent Acts, expiring 5th April 1885 (Fortifications) - - - -	- - -	575,291 - -
Annuity, per 26 Vict. c. 14, expiring 5th April 1885 - -	- - -	9,983 7 3
Annuities, per 32 & 33 Vict. c. 59, and 29 Vict. c. 5, expiring at various dates in 1885 (payable yearly) - - - -	- - -	3,617,845 - -
Annuities, per 35 & 36 Vict. c. 68, expiring 29th March and 1st August 1885, "The Military Forces Localization Act"	- - -	183,758 - -
Red Sea and India Telegraph Company's Annuity, 25 & 26 Vict. c. 39, expiring 4th August 1908 - - - - -	- - -	‡ 36,000 - -
Sinking Fund Annuity on New £. 2½ per Cents., per 33 & 34 Vict. c. 71, s. 69 - - - - - - - - -	- - -	6,906 14 7
Annuities for Terms of Years, per 10 Geo. 4, c. 24, and 3 Will. 4, c. 14, expiring at various periods, viz.:		
£. s. d.		
Granted up to 31st March 1877 - 1,770,764 2 -		
Deduct, expired and unclaimed up to ditto - - - - - 1,735,527 5 6		
	- - -	‡ 35,236 16 6
Life Annuities, per 10 Geo. 4, c. 24, 3 Will. 4, c. 14, 16 & 17 Vict. c. 45, and 27 & 28 Vict. c. 43, viz.:		
£. s. d.		
§ Granted up to 31st March 1877 - 4,016,944 12 2		
Deduct, expired and unclaimed up to ditto - - - - - 3,094,708 13 8		
	- - -	922,235 18 0
Exchequer Tontine Annuities, per 29 Geo. 3 - - -	- - -	12,826 13 7
£. s. d.		26,874,878 7 3
MANAGEMENT - - { Great Britain - - 212,142 8 3 / Ireland - - - 9,561 18 - }	- - -	221,704 6 3
TOTAL FUNDED DEBT and CHARGE on 31st March 1877 - - - - £.	712,621,355 3 9	27,096,582 13 5

‡ *See* Note on following page.

§ In addition to the above, the following amount of Deferred Life Annuities had been granted, but had not become chargeable on 31st March 1877, viz. - - - - - - - - - - - - £. s. d. 3,779 11 -

AN ACCOUNT of the State of the Public Funded Debt of the United Kingdom, &c.—*continued.*

ABSTRACT.	CAPITALS OF FUNDED DEBT. £. s. d.	CHARGE. £. s. d.
TOTAL FUNDED DEBT AND CHARGE:		
On 31st March 1877	712,621,355 3 9	27,096,582 13 5
On 31st March 1876	713,657,517 8 7	27,007,779 2 –
Decrease of Debt and Increase of Charge in the Year ended 31st March 1877 £.	1,036,162 4 10	88,803 11 5

EXPLANATORY NOTES to preceding pages.

	£. s. d.
* Funded Debt in Ireland, at 31st March 1876	35,156,661 9 9
Add,—Stock transferred from England to Ireland in the year ended 31st March 1877	343,310 9 6
	35,499,971 19 3
Deduct,—Stock transferred from Ireland to England in the year ended 31st March 1877	972,334 11 4
£.	34,527,637 7 11

† Of this Amount the Sum of 1,234,621 *l.* 17 *s.* 2 *d.* stands in the names of the National Debt Commissioners on account of Unclaimed Stock and Dividends, viz.:

	£. s. d.	£. s. d.
Balance of Unclaimed Stock in Commissioners' names at the 31st March 1876 — England	671,367 17 4	697,341 3 10
Balance of Unclaimed Stock in Commissioners' names at the 31st March 1876 — Ireland	25,973 6 6	
Transferred to Commissioners in the Year ended 31st March 1877 — England	143,208 4 1	144,183 – 2
Transferred to Commissioners in the Year ended 31st March 1877 — Ireland	974 16 1	
		841,524 4 –
Re-transferred to Claimants in the Year ended 31st March 1877 — England	45,145 18 6	48,239 7 6
Re-transferred to Claimants in the Year ended 31st March 1877 — Ireland	3,093 9 –	
Balance of Unclaimed Stock at 31st March 1877 — England	769,430 2 11	793,284 16 6
Balance of Unclaimed Stock at 31st March 1877 — Ireland	23,854 13 7	
Balance of Stock purchased with Unclaimed Dividends to 31st March 1877		441,337 – 8
TOTAL STOCK £.		1,234,621 17 2

‡ The following Annuities are also Unclaimed, viz.:

	£. s. d.
Annuities for Terms of Years, 18 Vict. c. 18	142 12 9
Ditto ditto 10 Geo. 4, c. 24	10 – –
Red Sea and India Telegraph Annuities	109 – –

National Debt Office,
7 June 1877.

C. Rivers Wilson,
Comptroller General.

	£. s. d.
Mem.—Total of the Funded Debt on 31st March 1877	712,621,355 3 9
Total of the Unfunded Debt ditto	13,943,800 – –
Value in Stock of Terminable Annuities, ditto	49,308,558 – –
	775,873,713 3 9
Deduct,—Probable amount of Loans due to the State that will be recovered, and the value of the Suez Canal Shares	26,800,000 – –
£.	749,073,713 3 9

UNFUNDED DEBT.

STATEMENT showing the Total Amount of UNFUNDED DEBT (in EXCHEQUER BILLS and EXCHEQUER BONDS) outstanding on the 1st April 1876; the Amounts issued and paid off in the Year to 31st March 1877, and the Total Amount of UNFUNDED DEBT (in Exchequer and Treasury Bills and Exchequer Bonds) outstanding on the last-mentioned Date.

		Treasury Bills.	Exchequer Bills.	Exchequer Bonds.
		£.	£.	£.
Amount of the Unfunded Debt outstanding on 1st April 1876			4,201,800	6,500,000
Amount issued in the Year ended 31st March 1877, viz.:				
EXCHEQUER BILLS:	£.			
Dated 11th June 1876, in exchange for Bills (dated 11th June 1871) delivered up to be cancelled	2,585,300			
Dated 11th March 1877, in exchange for Bills (dated 11th March 1872) delivered up to be cancelled	1,467,200			
Dated 11th March 1877, issued in lieu of Bills paid off in money	125,100		4,177,600	—
EXCHEQUER BONDS				1,760,000
TREASURY BILLS:	£.			
Three Months Bills, dated 28th March 1877	1,639,000			
Six Months Bills, dated 28th March 1877	561,000	2,200,000	—	—
Amounts paid off in the same period, viz.:		2,200,000	8,379,400	8,260,000
EXCHEQUER BILLS:				
Paid in New Bills (issued in exchange as above)	4,052,500			
Paid off in money	133,100		4,185,600	—
EXCHEQUER BONDS:				
Series B, paid off 28th March 1877	500,000			
Series C, paid off 30th March 1877	200,000			
Suez Bonds	10,000			710,000
	£.	2,200,000	4,193,800	7,550,000

TOTAL Amount of Unfunded Debt on 31st March 1877, £. 13,943,800.*

[*Estimated Charge for Interest of the above (excluding Suez Bonds) in the Year 1877–78, £. 220,000.*]

[*Estimated Charge for Interest and Principal of Exchequer Bonds (Suez) in the Year 1877–78, £. 200,000.*]

	£.	£.
* Exchequer Bills, dated as under, viz.:—		
11 June 1861, not bearing interest	100	
11 June 1871 ditto	600	
11 March 1872 ditto	15,500	16,200
11 June 1876	2,585,300	
11 March 1877	1,592,300	4,177,600
		4,193,800

* Exchequer Bonds, viz.:—

Series.	Date.	When Payable.	Rate of Interest.	Amount.	
				£.	
U.	24 Mar. 1875	24 Mar. 1878		1,000,000	
V.	3 Aug. „	3 Aug. „		250,000	
W.	7 Sept. „	7 Sept. „		250,000	
X.	5 Oct. „	5 Oct. „		250,000	
Y.	3 Nov. „	3 Nov. „		250,000	
Z.	3 Nov. „	3 Nov. „	£. 3½ p' cent. per annum.	250,000	
A.	5 Jan. 1876	5 Jan. 1879		250,000	
D.	29 June „	29 June „		500,000	
E.	29 Sept. „	29 Sept. „		500,000	
F.	29 Mar. 1877	29 Mar. 1880		60,000	
				3,560,000	
Suez, under 39 Vict. c. 1	20 Mar. 1876	Half-yearly up to 1912.		3,990,000	
					7,550,000
Treasury Bills (as above)					2,200,000
				£.	13,943,800

EXPLANATORY MEMORANDUM of the AMOUNT included in the Statement on page 34, under the Head of MANAGEMENT.

	Great Britain. £. s. d.	Ireland. £. s. d.
UNREDEEMED CAPITAL, as it stood on the 5th April 1875 :—		
New Annuities, at £. 2½ per Cent.	3,773,587 2 1	2,330 – –
Consolidated Annuities, £. 3 per Cent.	388,778,296 14 1	5,384,817 8 9
Reduced Annuities ditto	94,582,794 10 3	139,507 5 4
New Annuities ditto	178,979,421 19 2	27,853,145 5 7
New £. 3½ per Cent. Annuities	225,746 6 4	—
Annuities for terms of years, computed at 10 years' purchase to make a nominal capital	463,658 10 –	—
Annuities expiring in 1885, computed at 10 years' purchase to make a nominal capital	43,547,029 15 –	—
Red Sea Telegraph Annuity, computed at 10 years' purchase to make a nominal capital	359,955 – –	—
	710,710,489 16 11	33,379,799 19 8
CHARGE FOR MANAGEMENT on the above Capital for the Year to 5th April 1876 :		
Bank of England (per Act 24 V. c. 3) :		
On £. 600,000,000. 0. 0. at the rate of £. 300 per million (£. 180,000 – –)		
On £. 110,710,489. 16. 11. at the rate of £. 150 per million (£. 16,606 11 5)	196,606 11 5	—
Bank of Ireland (per Act 28 V. c. 16) :		
On £. 33,379,799. 19. 8. at the rate of £. 300 per million		10,013 18 9
MANAGEMENT OF EXCHEQUER BILLS AND BONDS by the Bank of England, for one Year to 30 November 1876 (per Act 29 & 30 V. c. 25) :		
On £. 6,471,800* (the amount outstanding on 1 December 1875) at the rate of £. 100 per million	647 3 7	—
	197,253 15 –	10,013 18 9

	£.
*Bills	4,221,800
Bonds	2,250,000
£.	6,471,800

AMOUNTS issued for payment to the Banks of England and Ireland	£. 207,267 13 9
Amount issued for Salaries, &c. of the National Debt Office (*see* page 68)	16,017 16 5
	£. 223,285 10 2

STATEMENTS

RELATIVE TO

PUBLIC LOANS.

	Page.
SUMMARY OF ADVANCES AND REPAYMENTS	86 & 87
REPAYMENTS OF ADVANCES IN THE YEAR TO 31ST MARCH 1877	88 & 89
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ACCOUNT OF THE PAYMASTER GENERAL (DUBLIN) TO 31ST MARCH 1877	98
STATEMENT OF OLD ADVANCES NOT YET FULLY REPAID OR REMITTED	99
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PUBLIC LOANS.—ADVANCES AND REPAYMENTS.

SUMMARY of the AMOUNTS issued from the EXCHEQUER in 1876–77, for BULLION to the EXCHEQUER during the Year, and the TOTAL REPAYMENTS

ACTS UNDER WHICH THE ISSUES WERE MADE.	PURPOSE FOR WHICH ADVANCED.	Issued from the Exchequer in the Year.	Total Amounts Advanced.	
		£. s. d.	£. s. d.	
33 Vict. c. 10	Bullion for Coinage	455,000 – –	* 755,000 – –	1
28 & 29 Vict. c. 106	Colonial Docks	– – –	32,000 – –	2
9 & 10 Vict. c. 101, and 13 & 14 Vict. c. 31	Drainage of Land – Inclosure Commissioners – England	– – –	2,110,237 8 7	3
	Scotland	– – –	1,873,944 11 5	4
32 & 33 Vict. c. 21	Election Inquiry Expenses	67 14 6	16,327 10 11	5
24 & 25 Vict. c. 28	Holyhead Roads	– – –	83,700 – –	6
14 & 15 Vict. c. 89, and 15 & 16 Vict. c. 85	Metropolis Interments (Brompton Cemetery)	– – –	76,786 – 5	7
18 Vict. c. 17, and 19 & 20 Vict. c. 39	Sardinian Loan	– – –	2,000,000 – –	8
	£.	455,067 14 6	6,947,995 11 4	9
See detailed Statement, pages 90 and 91	Loans by Public Works Loan Commissioners, Great Britain	3,222,551 9 1	‡ 30,721,686 3 11	10
2 & 3 Will. 4, c. 125 *See* detailed Statement, page 93	Loans by West India Islands Relief Commissioners	– – –	948,150 – –	11
See separate Statement, pages 94 to 97	Loans by Commissioners of Public Works, Ireland	409,750 – –	13,245,024 6 –	12
See separate Statement, page 98	Loans by Paymaster General, Dublin	138,694 7 8	7,178,460 14 11	13
See separate Statement, page 99	Old Advances from the Exchequer not yet fully repaid or remitted	– – –	2,049,516 9 6	14
	£.	4,226,063 11 3	61,085,833 5 3	15
See separate Statement, pages 100 to 102	Old Advances from the Exchequer repaid in full or remitted	– – –	19,017,152 10 –	16
	£.	4,226,063 11 3	¶ 80,102,985 15 3	17

* This includes the amount of bullion advances outstanding at the commencement of the year only.
† A payment to the Exchequer of 120 *l.* was inadvertantly omitted from this Account for 1875–76.
‡ Advances to the extent of 3,074,052 *l.* 2 *s.* 8 *d.*, were made in excess of this sum, the Accounts of which are now closed. *Vide* particulars on page 92.
§ It should be pointed out, that the balances on the Accounts of the Commissioners at the Bank of England on the 31st March (the last day of the Financial Year) are not paid over until the next Financial Year. This accounts for the difference, which

PUBLIC LOANS.—ADVANCES AND REPAYMENTS.

and PUBLIC LOANS, the TOTAL AMOUNTS advanced for LOANS, the AMOUNTS repaid thereto, the AMOUNTS remitted, and the BALANCES outstanding.

	AMOUNT REPAID DURING THE YEAR TO THE EXCHEQUER.		TOTAL PAYMENTS INTO THE EXCHEQUER.		AMOUNT REMITTED.	BALANCES OUTSTANDING DUE TO THE EXCHEQUER on 31 March 1877.	
	Principal.	Interest.	Principal.	Interest.		Principal.	Interest.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	325,000 – –	– – –	325,000 – –	– – –	– – –	430,000 – –	—
2	– – –	– – –	5,885 10 6	3,472 5 8	– – –	26,114 9 6	(Not computed.)
3	69,113 – –	12,887 – –	1,806,637 1 2	791,251 2 5	– – –	303,600 7 5	—
4	32,799 – –	5,201 – –	1,744,660 7 3	708,918 15 2	– – –	129,284 4 2	—
5	– – –	– – –	11,333 17 5	– – –	– – –	4,993 13 6	—
6	800 – –	– – –	761,099 7 6	– – –	22,600 12 6	– – –	—
7	4,864 4 4	635 15 8	64,981 9 11	55,018 10 1	– – –	11,804 10 6	—
8	36,286 8 1	43,713 11 11	570,162 8 9	1,089,837 11 3	– – –	1,429,837 11 3	—
9	468,862 12 5	62,437 7 7	4,589,760 2 6	2,648,498 4 7	22,600 12 6	2,335,634 16 4	—
10	§ 661,265 5 9	§ 521,444 6 2	§ 13,685,428 16 1	§ 7,544,914 – 7	65,754 18 4	16,970,502 9 6	354,235 3 8
11	§ 3,406 19 8	§ 353 13 1	§ 511,676 16 6	§ 505,693 6 5	316,028 11 3	‖ 120,444 12 3	17,248 10 2
12	105,747 1 11	67,754 5 5	5,008,800 17 2	2,432,306 18 1	5,899,415 12 8	2,336,807 16 2	64,039 17 5
13	168,706 7 9	– – –	5,907,736 3 6	248,903 1 1	14,617 12 2	1,251,106 19 3	No interest accrues to the Exchequer on Loans which have been made through Paymaster General, Dublin.
14	– – –	2,582 14 8	15,941 19 7	241,766 5 7	147,500 – –	1,886,074 9 11	No calculation has been made of the interest in arrear.
15	1,402,988 7 6	654,572 6 11	29,719,344 15 4	13,622,081 16 4	6,465,917 6 11	24,900,571 3 5	
16	330 – –	– – –	16,014,078 6 8	2,037,501 12 5½	3,003,074 3 4	—	—
17	1,403,318 7 6	654,572 6 11	45,733,423 2 –	15,659,583 8 9½	9,468,991 10 3	24,900,571 3 5**	

which will be observed, between the receipts into the Exchequer and those of the Commissioners, as shown on pp. 91 and 93. Of course the "Balances outstanding" are also affected by this fact.

‖ Of this balance, 98,635 *l.* 17 *s.* is considered to be irrecoverable.

¶ Deducting advances (755,000 *l.*) for bullion, the total amount advanced for Public Loans is ascertained, viz., 79,347,985 *l.* 15 *s.* 8 *d.* *See* also Note * above.

** Deducting advances (430,000 *l.*) for bullion, the balances outstanding for principal on Public Loans will be found to be 24,470,571 *l.* 3 *s.* 5 *d.*, of this sum 1,600,000 *l.* may be taken to be irrecoverable.

REPAYMENT OF ADVANCES.*

DETAILS of the Amount received into the Exchequer, in the Year ended 31st March 1877, in Repayment of Advances made out of the Consolidated Fund for Purchase of Bullion, for Local Works and Improvements, &c., and for the Loan to *Sardinia*.

	Acts.	Amount received in the Year.	Total.
		£. s. d.	£. s. d.
BULLION for Coinage (repayment of Advances)	33 V. c. 10	- - -	325,000 - -
COLONIAL DOCKS	28 & 29 V. c. 106	—	—
DRAINAGE of LAND (Inclosure Commissioners) Great Britain	9 & 10 V. c. 101, and 13 & 14 V. c. 31	- - -	101,912 - -
GLASGOW and CARLISLE ROADS	56 G. 3, c. 83; 58 G. 3, c. 44; 59 G. 3, c. 90; 1 & 2 G. 4, c. 127 (Local)	—	—
HOLYHEAD ROADS	24 & 25 V. c. 28	- - -	800 - -
METROPOLIS INTERMENTS (Brompton Cemetery)	14 & 15 V. c. 89, and 15 & 16 V. c. 85	- - -	4,864 4 4
SARDINIAN LOAN (Sinking Fund)	18 V. c. 17, and 19 & 20 V. c. 39	- - -	36,286 8 1
LOANS by PUBLIC WORKS LOAN COMMISSIONERS:			
PUBLIC WORKS LOAN FUND, ENGLAND and IRELAND (Ordinary)	5 V. Sess. 2, c. 9; 9 & 10 V. c. 80; 14 & 15 V. c. 23, &c.	323,094 16 10	
SOUTH WALES TURNPIKE TRUSTS	7 & 8 V. c. 91	636 5 8	
ANNUITY TAX ABOLITION (Edinburgh and Montrose)	33 & 34 V. c. 87	5,650 - -	
BELFAST and COUNTY DOWN RAILWAY	31 & 32 V. c. 81	18,835 - -	
CATTLE DISEASES PREVENTION	29 & 30 V. c. 72	7,272 10 11	
HARBOURS and PASSING TOLLS, &c.	24 & 25 V. c. 80, and 29 & 30 V. c. 72	151,255 7 8	
LABOURING CLASSES DWELLINGS	29 & 30 V. c. 72	2,306 5 10	
PORTPATRICK RAILWAY COMPANY	31 & 32 V. c. 81	3,258 7 5	
PUBLIC WORKS (Manufacturing Districts)	26 & 27 V. c. 70; 27 & 28 V. c. 104; and 30 & 31 V. c. 32	59,930 10 7	
RAILWAY COMPANIES, IRELAND (Temporary Advances)	29 & 30 V. c. 95	16,600 - -	
	Carried forward £.	588,839 4 11	468,862 12 5

* The Interest on Advances from the Exchequer, formerly included in the Repayments, has, from 1st April 1874, been carried to Revenue under the Head of "Interest on Public Loans." *See* page 22.

DETAILS of the Amount received for Repayment of Advances, &c.—*continued.*

	Acts.	Amount received in the Year.	Total.
		£. s. d.	£. s. d.
LOANS BY PUBLIC WORKS LOANS COMMISSIONERS —*continued.*	Brought forward - - -	388,839 4 11	468,862 12 5
ELEMENTARY EDUCATION (School Board Loans)	35 & 36 V. c. 71; 36 & 37 V. c. 49; and 37 V. c. 9 - - - -	42,686 4 11	
SANITARY LOANS - - - - - - -	36 & 37 V. c. 49 - - - -	29,739 15 11	
			661,265 5 9
LABOURING CLASSES DWELLINGS - - -	29 & 30 V. c. 72 (Surplus Issue repaid) - - - - - -	- - -	330 - -
WEST INDIA ISLANDS RELIEF - - -	2 & 3 W. 4, c. 125; 5 & 6 W. 4, c. 51; 6 & 7 V. c. 63; and 11 & 12 V. c. 22, &c. - - - -	- - -	3,406 19 8
COUNTY GAOLS (Building), Ireland - - - -	50 G. 3, c. 103, and 7 G. 4, c. 74 -	- - -	3,436 10 6
LUNATIC ASYLUMS (Building and Support), Ireland	1 & 2 G. 4, c. 33; 6 G. 4, c. 54; and 18 & 19 V. c. 109 - - -	- - -	160,066 1 9
LOANS by COMMISSIONERS of PUBLIC WORKS, IRELAND:			
IRISH LAND (Landlord and Tenant) - - -	33 & 34 V. c. 46 - - - - -	4,617 8 -	
LOAN FUND, IRELAND (Ordinary) - - -	1 & 2 W. 4, c. 33; 6 & 7 V. c. 44; 9 & 10 V. c. 85; 14 & 15 V. c. 51, &c.	53,238 9 11	
LAND IMPROVEMENT, IRELAND (including Preliminary Expenses) - - - - - -	10 V. c. 32, &c. - - - -	46,483 2 8	
PIERS AND HARBOURS - - - - -	16 & 17 V. c. 136 - - - -	909 9 10	
ROADS AND BRIDGES - - - - - -	6 & 7 W. 4, c. 116 - - - -	498 11 6	
			105,747 1 11
VALUATION OF LANDS - - - - - -	7 G. 4, c. 62; 6 & 7 W. 4, c. 84; 11 & 12 V. c. 22; 15 & 16 V. c. 63; and 23 & 24 V. c. 4 - -	- - -	6 10 5
BUILDING SCHOOLS - Ireland - - -	3 G. 4, c. 79 - - - - -	- - -	150 - -
RELIEF OF TRADE - - - - - -	1 G. 4, c. 39, and 3 G. 4, c. 118 - -	- - -	47 5 1
	TOTAL RECEIPTS IN REPAYMENT OF ADVANCES - - - £.		1,403,318 7 6

ACCOUNT of the PUBLIC WORKS LOAN COMMISSIONERS, showing, to the 31st various Acts regulating their Proceedings; the Amounts advanced by the Commissioners; thereon; and the Balances Outstanding.

	£. s. d.		FOR WHAT PURPOSES ADVANCED.	ADVANCES BY PUBLIC WORKS LOAN COMMISSIONERS. Amounts Advanced in the Year.	Total Amount Advanced to 31st March 1877.	
			GREAT BRITAIN*:	£.	£. s. d.	
			Annuity Tax Abolition, Edinburgh Town Council.	- -	56,500 - -	1
			Baths and Washhouses - -	- -	81,846 - -	2
			Bridges and Ferries - - -	- -	352,290 - -	3
			Burial Boards - - - - -	21,750	849,386 - -	4
			Canals, Rivers, and Drainage -	- -	1,710,600 - -	5
			Cattle Diseases Prevention Act, 1866.	- -	290,000 - -	6
			Churches and Parochial Chapels	- -	440,218 - -	7
			Harbours, Docks, and Piers -	13,000	763,500 - -	8
			Improvement of Cities and Towns, and Battersea Park.	300	916,100 - -	9
			Labouring Classes Dwellings Act, 1866-67.	14,000	203,670 - -	10
			Law Courts, Gaols, and other Public Buildings.	- -	826,436 - -	11
			Local Boards, Sanitary Loans, &c.	883,066	3,336,545 - -	12
			Lunatic Asylums - - -	- -	410,656 - -	13
			Police Commissioners, Scotland	- -	32,555 - -	14
			Portpatrick Railway Company -	7,900	120,841 - -	15
Amount issued for the purpose of Advances by the Commissioners, under 39 & 40 Vict. c. 31, and sundry previous Acts - - -	33,805,231 6 7		Public Works (Manufacturing Districts), Act 1863-64.	- -	1,759,015 - -	16
			Roads - - - - - -	- -	666,270 - -	17
			School Boards - - - -	1,814,629	6,422,234 - -	18
			School Boards (Scotland) - -	441,477	1,571,518 - -	19
			South Wales Turnpike Trusts -	- -	215,241 7 1	20
			Workhouses - - - -	1,000	3,938,592 - -	21
			IRELAND*:			
			Belfast and County Down Railway Company.	- -	164,804 7 9	22
			Burial Boards - - - - -	- -	18,678 - -	23
			Harbours - - - - - -	- -	40,850 - -	24
			Railways - - - - - -	- -	2,686,300 - -	25
Amount of Advances to 31st March 1877, as shown in the annexed Account - £. s. d. 30,721,686 3 11			Railway Companies (Ireland) Temporary Advances Act, 1866.	- -	159,356 - -	26
			Road - - - - - -	- -	12,000 - -	27
Amount excluded in respect of Services, the accounts of which are closed; surplus issues repaid to the Exchequer, &c. - 3,074,052 2 8			Sewage Utilization - - -	- -	11,035 - -	28
			Waterworks - - - - -	- -	479,000 - -	29
			Workhouse - - - - -	- -	2,000 - -	30
	33,795,738 6 7		Harbours and Passing Tolls, &c. Act, 1861.*	52,500	2,183,649 9 1	31
Balances of Issues in hand - £.	9,493 - -		£.	3,249,622	30,721,686 3 11	32
			Actual Receipt into the Exchequer - - -			

* The advances under the Harbours and Passing Tolls, &c. Act, 1861, were made for works in Great Britain, the Isle of Man, Ireland, Colombo, and Lighthouses on Islets in Ceylon.

March 1877, the Amount issued for the purpose of ADVANCES by way of LOAN under the Amounts paid into the Exchequer in repayment of such Advances, and for Interest

	AMOUNTS REPAID ON ACCOUNT OF THE EXCHEQUER DURING THE YEAR, AND INTEREST.		REPAYMENTS AND REMISSIONS.			BALANCES OUTSTANDING.		
			Total Payments into the Bank of England, in Repayment of Principal and for Interest.		Amount Remitted.			
	Principal.	Interest.	Principal.	Interest.		Principal.	Interest.	TOTAL.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	5,650 – –	939 6 3	33,900 – –	8,610 5 –	– –	22,600 – –	– –	22,600 – –
2	14,040 – –	1,058 14 10	80,006 – –	33,981 17 4	– –	1,840 – –	– –	1,840 – –
3	1,041 5 8	4,449 5 –	289,688 2 5	176,520 17 9	7,575 – –	55,026 17 7	39,183 3 3	94,210 – 10
4	21,815 5 –	10,996 12 9	625,607 16 8	373,293 6 4	1,850 – –	221,928 3 4	135 5 5	222,063 8 9
5	4,158 18 7	9,525 8 4	1,435,939 18 1	580,057 – 2	– –	274,660 1 11	– –	274,660 1 11
6	7,272 10 11	6,955 4 1	83,266 4 9	82,778 6 2	– –	206,733 15 3	– –	206,733 15 3
7	9,896 18 8	2,495 14 10	379,568 3 7	157,435 1 5	– –	60,649 16 5	3,650 11 4	64,300 7 9
8	3,429 14 5	4,745 4 –	605,519 18 9	244,916 17 7	13,638 5 1	144,341 16 2	2,866 8 10	147,208 5 –
	2,125 – –	6,298 11 4	802,005 – –	279,723 6 2	– –	114,095 – –	83,637 11 8	197,732 11 8
10	2,260 8 8	6,553 15 9	24,169 6 7	32,661 16 11	– –	179,500 13 5	172 3 11	179,672 17 4
11	21,679 4 10	5,740 11 7	725,729 8 7	333,296 6 3	– –	100,706 11 5	– –	100,706 11 5
12	66,840 15 –	66,343 4 7	735,793 5 –	410,997 18 2	265 18 4	2,600,485 16 8	3,765 15 7	2,604,251 12 3
13	45,539 14 11	5,381 17 10	327,896 18 5	194,850 14 6	– –	82,759 1 7	– –	82,759 1 7
14	2,929 13 10	1,284 2 3	10,129 11 4	10,694 1 9	– –	22,425 8 8	– –	22,425 8 8
15	3,258 7 5	3,371 14 11	19,434 11 2	21,606 17 7	– –	101,406 8 10	– –	101,406 8 10
16	60,022 10 3	33,147 11 –	722,309 16 1	561,409 15 3	– –	1,036,705 3 11	270 17 10	1,036,976 1
17	1,306 5 –	906 12 11	541,924 6 5	300,929 18 2	38,925 14 11	85,419 18 8	113,948 8 10	199,368 7 6
18	45,019 7 6	159,635 8 9	95,186 14 8	335,884 14 –	– –	6,327,047 5 4	449 7 2	6,327,496 12 6
19	23,822 2 4	39,446 18 –	33,454 14 6	51,306 5 3	– –	1,538,063 5 6	– –	1,538,063 5 6
20	276 7 3	10 2 2	215,241 7 1	125,854 – 1	—	—	—	—
21	91,984 6 10	29,121 16 10	3,490,936 17 10	1,179,899 10 1	3,500 – –	444,155 2 2	208 6 8	444,363 8 10
22	18,835 – –	7,297 11 4	44,801 17 4	35,319 7 3	– –	120,002 10 5	2,231 – 1	122,233 10 6
23	483 18 –	254 1 9	14,080 2 –	5,075 11 8	– –	4,597 18 –	– –	4,597 18 –
24	105 – –	137 13 11	21,600 – –	11,574 10 2	– –	19,250 – –	1,500 – –	20,750 – –
25	92,693 13 10	47,930 18 –	1,789,389 4 11	1,256,286 – 10	– –	896,910 15 1	34,033 14 6	930,944 9 7
26	16,600 – –	8,297 17 6	120,956 – –	42,079 15 6	– –	38,400 – –	– –	38,400 – –
27	– –	– –	600 – –	480 – –	– –	11,400 – –	– –	11,400 – –
28	398 2 –	391 17 6	2,906 2 11	2,737 3 11	– –	8,128 17 1	34 9 4	8,163 6 5
29	5,243 2 8	14,486 17 4	122,260 4 9	203,668 11 9	– –	356,739 15 3	– –	356,739 15 3
30	100 – –	55 – –	1,000 – –	769 8 1	– –	1,000 – –	– –	1,000 – –
31	151,251 5 1	60,014 5 3	371,299 8 2	538,241 11 9	– –	1,812,350 – 11	20,121 3 –	1,832,471 3 11
32	720,078 18 8	542,274 – 7	13,766,601 2 –	7,592,940 16 10	65,754 18 4	16,889,330 3 7	306,208 7 5	17,195,538 11 –
£.	*661,265 5 9*	*521,444 6 2*	*13,685,428 16 1*	*7,544,914 – 7*				

Note.—The difference between the sums in *Italics*, being the actual receipts in the Exchequer, and those received by the Commissioners, arises from the fact that the sums received by the Commissioners in March are not transferred to the Exchequer until April following.

STATEMENT of the Amount of Advances for Loans excluded from the preceding Account of the Public Works Loan Commissioners, being in respect of Services the Accounts of which are closed.

PURPOSE FOR WHICH ADVANCED.	Total Amounts Advanced.	Total Payments into the Exchequer.		Transferred to Ireland, p. 99.	Amounts Remitted.	Amounts Irrecoverable.	
		Principal.	Interest.				
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	
Colleges	108,000 – –	108,000 – –	52,362 17 3	—	—	—	
Collieries	303,700 – –	299,877 3 4	53,089 3 9	– – –	3,822 16 8	—	
Compensation for Damage during Riots	80,750 – –	80,750 – –	9,892 2 1	—	—	—	
Emigration	18,260 – –	18,260 – –	2,429 5 2	—	—	—	
Fisheries	33,700 – –	33,036 18 6	5,678 2 11	– – –	– – –	663 1 6	
Labouring Classes Dwellings	330 – –	(a) 330 – –	– – –	– – –	– – –	– – –	(a) Surplus Issue repaid to Exchequer on 5 August 1876.
Railways	490,600 – –	469,987 10 6	179,285 8 6	– – –	15,921 – 1	4,691 9 5	
Relief of Parishes	2,700 – –	2,700 – –	354 10 9	—	—	—	
Thames Tunnel	250,500 – –	100,000 – –	39,436 16 2	– – –	150,500 – –	—	
Waterworks	137,000 – –	137,000 – –	11,760 12 7	—	—	—	
Works, Manufacturing Districts	985 – –	(b) 985 – –	– – –	– – –	– – –	– – –	(b) Amount of Surplus Issue repaid to Exchequer on 30 October 1869.
Law Courts (Ireland)	40,550 – –	40,550 – –	24,790 16 9	—	—	—	
Railways (Ireland)	9,200 – –	(c) 9,200 – –	– – –	– – –	– – –	– – –	(c) Amount of Surplus Issue repaid to Exchequer on 11 February 1869.
Union Workhouses (Ireland)	1,422,680 – –	52,145 4 –	– – –	– – –	{ 47,268 – – / 1,323,266 16 – }	– – –	Transferred to Account of Public Works Commissioners, Ireland, but subsequently remitted by Act 16 & 17 Vict. c. 75.
Ulster Canal	120,000 – –	– – –	– – –	120,000 – –	—	—	
Forged Exchequer Bill, 1824	14,000 – –	– – –	– – –	– – –	– – –	14,000 – –	
Office Expenses, 1842 to 1854	41,097 2 8	– – –	– – –	– – –	– – –	41,097 2 8	
Totals (carried to p. 101) £.	3,074,052 2 8	1,352,821 16 4	379,079 15 11	120,000 – –	1,540,778 12 9	60,451 13 7	

STATEMENT of the West India Islands Relief Commissioners of all Loans Advanced for the Relief of Trade, or of Individuals for the Employment of Labour, the Promotion of Public Works, or for other Local Purposes, from 1832 to 31st March 1877, under 2 & 3 Will. 4, c. 125, &c.; Amounts Received into the Exchequer in Repayment of such Advances and for Interest thereon, the Amount Remitted, and the Balance Outstanding.

	Total Amount Advanced.	REPAYMENTS AND REMISSIONS.						BALANCES OUTSTANDING.		
		Amount Repaid on account of the Exchequer during the Year.		Total Repayments to 31st March 1877.		Remissions.		Principal.		Interest.
		Principal.	Interest.	Principal.	Interest.	Amount.	Authority.	Recoverable.	Irrecoverable.	
Jamaica:	£.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.		£. s. d.	£. s. d.	£. s. d.
On Security of Estates -	244,100	45 4 6	- -	85,343 18 6	75,509 8 10	80,352 16 1	Under Treasury Warrants -	- -	78,403 5 5	—
Public Loan - - -	200,000	- -	- -	40,011 4 10	102,088 15 2	159,988 15 2	Balance of Principal extinguished by 25 & 26 Vict. c. 55, subject to conditions imposed by Sections 1 and 2.	—	—	—
Barbados - - - -	303,550	2,401 1 8	222 8 6	297,369 3 10	233,212 18 2	- -	- - - -	6,180 16 2	- -	524 4 1
St. Vincent - - - -	104,750	40 - -	3 1 3	61,011 17 10	54,978 16 4	25,260 - -	Under Treasury Warrants -	- -	18,478 2 2	—
St. Lucia - - - -	18,800	397 10 -	20 18 7	16,305 10 7	16,678 13 11	690 - -	Under Treasury Warrants -	- -	1,804 9 5	—
Dominica:										
On Security of Estates - (under Act 5 & 6 Will. 4, c. 61.)	66,950	- -	- -	4,763 - -	13,036 - -	49,737 - -	Under Treasury Warrants -	12,450 - -	- -	16,616 9 10
Public Loan - - - (under Act 5 & 6 Will. 4, c. 61; also 23 & 24 Vict. c. 57, and 30 & 31 Vict. c. 91.)	10,000	685 6 9	118 13 3	7,034 4 2	10,200 2 6	- -	- - - -	2,965 15 10	- -	96 7 9
Totals - - - £.	948,150	3,569 2 11	365 1 7	511,838 19 9	505,704 14 11	316,028 11 3	- - - -	21,596 12 -	98,685 17 -	17,237 1 8
Actual Receipt into the Exchequer - - - £.		*3,406 19 8*	*353 13 1*	*511,676 16 6*	*505,693 6 5*					

Note.—The difference between the sums in *Italics*, being the actual receipts in the Exchequer, and those received by the Commissioners, arises from the fact that the sums received by the Commissioners in March are not transferred to the Exchequer until after the close of the Financial Year.

PUBLIC WORKS LOANS (IRELAND). - - -

STATEMENT of the COMMISSIONERS of PUBLIC WORKS in *Ireland*, showing various Acts, the Amounts advanced, the Amounts paid into the Exchequer in and Interest remaining outstanding.

PARTICULARS OF ISSUES AUTHORISED.		Amounts Issued to the Commissioners.	FOR WHAT PURPOSE ADVANCED.	Issued from the Exchequer in the Year.	Advances on Loan during the Year.	
For PUBLIC WORKS LOAN FUND, IRELAND:	£. s. d.	£. s. d.	PUBLIC WORKS LOAN FUND:	£. s. d.	£. s. d.	
By Act 1 & 2 Will. 4, c. 33	744,650 - -		Grand Juries of Counties; making and improving Roads, Court Houses, &c. - -	- -	8,978 12 -	1
„ 6 & 7 Will. 4, c. 108	100,000 - -					
„ 1 & 2 Vict. c. 88 -	46,000 - -		Grand Juries of Counties, Relief Works, 9 Vict. c. 1 -	- -	- -	2
„ 9 & 10 Vict. c. 108	145,000 - -		Local Boards, improving Townships, &c. - - - -	- -	3,500 - -	3
„ 10 & 11 Vict. c. 106	370,000 - -		Roads and Bridges, for roads, bridges, &c. - - - -	- -	- -	4
„ 12 Vict. c. 23 -	200,000 - -		Inland Navigation, Improvements - - - - -	- -	- -	5
„ 11 & 12 Vict. c. 51	138,648 15 7		Public Buildings, Erection and completion of Works - -	- -	- -	6
„ 13 & 14 Vict. c. 31	800,000 - -		Maynooth College, additions, and improvements - -	- -	- -	7
Sundry Acts continued by 29 & 30 Vict. c. 73 (60,000 *l.* per annum) -	2,010,000 - -		Railways, in aid of construction	- -	53,333 - -	8
Total Issues authorised	4,554,298 15 7		Quarries, Mines, &c., in aid of sundry works - - -	- -	- -	9
Total Amount issued to 31 March 1877 -	4,389,298 15 7	4,389,298 15 7	Ecclesiastical Commissioners Act, 6 & 7 Will. 4, c. 108 -	- -	- -	10
Balance available for future Issue - - £.	165,000 - -		Harbours, Docks, &c., in aid of construction - - -	- -	- -	11
			Fishery Piers and Harbours Act, 9 Vict. c. 3 - - -	- -	2,556 13 4	12
			Labourers' Dwellings in Towns Act, 29 & 30 Vict. c. 44 -	- -	18,795 - -	13
			Glebe Loans Act, 33 & 34 Vict. c. 112 - - - - -	- -	33,371 - -	14
			Public Health Act, 37 & 38 Vict. c. 93 - - - -	- -	44,443 - -	15
			Exchequer Bills issued and afterwards relodged - -	- -	- -	16
			River Drainage and Navigation Act, 5 & 6 Vict. c. 89 - -	- -	- -	17
			River Drainage Maintenance Act, 29 & 30 Vict. c. 49 -	- -	1,583 18 6	18
			River Drainage Act, 26 & 27 Vict. c. 88 - - - - -	- -	42,400 - -	19
			TOTAL, Public Works Loans	210,000 - -	208,961 3 10	20
By Act 9 & 10 Vict. c. 107 - (Issues ceased)		4,797,648 12 1	Employment of the Labouring Poor, including Labouchere Drainage in 1846-47 - -	- -	- -	21
2 & 3 Vict. c. 61 - ditto -		294,090 - -	Improvement of Shannon Navigation - - - -	- -	- -	22
Carried forward - - - £.		9,481,037 7 8	- - - - - -	210,000 - -	208,961 3 10	

PUBLIC WORKS LOANS (IRELAND).

to the 31st March 1877, the Amounts authorised to be issued by way of Loan under Repayment of such Advances, the Amounts Remitted, and the Balances of Principal

	Total Amount Advanced.	Repayments during the Year.		Total Payments into the Exchequer.		Amounts Remitted.	Balances Outstanding.	
		Principal.	Interest.	Principal.	Interest.		Principal.	Interest.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	662,243 3 8	4,264 19 9	1,286 4 5	613,114 12 10	85,806 3 8	- - -	49,128 10 10	—
2	226,349 19 11	- -	- -	69,671 18 1	18,666 3 2	156,678 1 10	—	—
3	14,700 - -	1,550 - -	504 10 2	2,315 - -	1,311 6 4	- - -	12,385 - -	34 18 4
4	43,700 - -	- -	500 - -	30,878 8 1	18,817 9 -	2,971 11 11	9,850 - -	5,513 12 1
5	69,950 - -	200 - -	1,258 5 9	14,603 1 3	51,401 13 3	- - -	55,346 18 9	14,242 12 10
6	[illegible] - -	- -	- -	33,046 2 1	6,822 14 2	1,953 17 11	—	—
7	18,642 10 -	- -	- -	2,785 - 10	3,110 14 5	15,857 9 2	—	—
8	278,199 - -	- -	3,506 - 5	157,200 - -	80,775 1 6	- - -	120,999 - -	1,323 13 9
9	14,550 - -	- -	- -	14,550 - -	3,043 4 8	—	—	—
10	100,000 - -	- -	- -	100,000 - -	43,453 11 1	—	—	—
11	198,350 - -	1,773 4 1	2,400 17 4	54,233 1 3	141,664 7 9	68,186 3 3	75,930 15 6	7,577 18 -
12	50,091 1 11	723 17 5	203 14 1	42,519 16 2	2,375 13 6	- - -	7,571 5 9	—
13	29,255 - -	207 3 -	427 14 8	638 1 6	1,321 7 -	- - -	28,616 18 6	—
14	142,028 13 4	2,073 1 2	3,682 8 9	5,291 12 10	8,892 16 9	- - -	136,737 - 6	—
15	141,543 - -	3,059 12 7	3,763 16 4	3,810 10 5	4,281 19 3	- - -	137,732 9 7	—
16	3,700 - -	- -	- -	3,700 - -	361 14 7	—	—	—
17	2,082,052 7 3	32,038 5 8	6,022 2 7	749,122 5 8	772,552 1 2	1,196,795 12 3	136,134 9 4	167 17 3
18	16,351 7 6	1,664 - 1	653 11 10	4,061 10 3	1,897 13	- - -	12,289 17 3	14 18 8
19	262,426 4 1	5,684 6 2	4,741 7 7	26,714 1 9	23,264 18 9	- - -	235,712 2 4	290 10 10
20	4,389,132 7 8	53,238 9 11	28,950 13 11	1,928,255 3 -	1,269,820 13 4	1,442,442 16 4	1,018,434 8 4	29,166 1 9
21	4,797,648 12 1	- -	- -	502,700 13 10	87,279 14 2	4,294,947 18 3	—	—
22	294,090 - -	- -	- -	281,453 7 2	48,460 - 9	- - -	12,636 12 10	—
23	9,480,870 19 9	53,238 9 11	28,950 13 11	2,712,409 4 -	1,405,560 8 3	5,737,390 14 7	1,031,071 1 2	29,166 1 9

STATEMENT of Commissioners of Public Works in *Ireland*, showing to 31 March 1877,

PARTICULARS OF ISSUES AUTHORISED.	£. s. d.	Amounts Issued to the Commissioners. £. s. d.	FOR WHAT PURPOSE ADVANCED.	Issued from the Exchequer in the Year. £. s. d.	Advances on Loan during the Year. £. s. d.	
Brought forward - - - £.		9,481,037 7 8	- - -	210,000 - -	208,961 3 10	1
For LAND IMPROVEMENT, &c.:						
By Act 10 Vict. c. 32 -	1,500,000 - -					
„ 12 Vict. c. 23 -	300,000 - -					
„ 13 & 14 Vict. c. 31	200,000 - -					
„ 29 & 30 Vict. c. 40	1,000,000 - -					
Total Issues authorised	3,000,000 - -					
Total Amount issued to 31 March 1877 -	2,727,000 - -	2,727,000 - -	Improvement of Lands, viz., drainage, erection of farm buildings and farm labourers' dwellings, planting for shelter, &c. - - - -	122,000 - -	121,405 - -	2
Balance available for future Issue - - £.	273,000 - -					
For IRISH LAND ACT PURPOSES:						
By Act 33 & 34 Vict. c. 46	1,000,000 - -					
Total Amount Issued to 31 March 1877 -	359,000 - -	359,000 - -	For Advances to tenants for purchase of their farms, and to landlords for reclaiming waste lands, and compensating tenants for improvement and for disturbance -	75,000 - -	76,206 - -	3
Balance available for future Issue - - £.	641,000 - -					
By Act 57 Geo. 3, c. 34 - (Issues ceased)		491,444 19 8	For Public Works - - -	- - -	- -	4
„ 6 & 7 Will. 4, c. 116 - - - -		129,700 - -	Repairs of Post Roads and Bridges - - - - - -	1,500 - -	1,324 3 10	5
„ 9 Vict. c. 4 - - (Issues ceased)		23,500 - -	River Drainage, Preliminary Expenses - - - -	- -	- -	6
„ 10 Vict. c. 32, s. 15 - - - -		32,700 - -	Land Improvement, Preliminary Expenses - - -	800 - -	800 - -	7
„ 16 & 17 Vict. c. 136 - - -		3,426 8 11	Repairs of Fishery Piers and Harbours - - - -	450 - -	450 - -	8
„ 19 & 20 Vict. c. 62 - - - -		2,430 - -	Maintenance of Navigation Works executed in connection with Drainage Works - -	- -	- -	9
TOTAL Amount issued to 31 March 1877		13,250,238 16 3				
TOTAL Amount advanced on Loan to 31 March 1877 - - - - -		13,245,024 6 -				
BALANCE of Issues in hands of the Commissioners, and of the National Debt Commissioners - - - - £.		5,214 10 3	TOTALS - - - £.	409,750 - -	409,146 7 8	10

* Under 40 & 41 Vict. c. 27, 21,545 *l.* 11 *s.* 10 *d.*, or Principal of Loans, included in this Statement, has been

Office of Public Works, Dublin, 23 May 1877.

the Amounts authorised to be issued by way of Loan under various Acts, &c.—*continued.*

	Total Amount Advanced.	Repayments during the Year		Total Payments into the Exchequer.		Amounts Remitted.	Balances Outstanding.	
		Principal.	Interest.	Principal.	Interest.		Principal.	Interest.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	9,480,870 19 9	53,238 9 11	28,950 13 11	2,712,409 4 –	1,405,560 8 3	5,737,390 14 7	1,031,071 1 2	29,166 1 9
2	2,723,442 4 4	45,833 2 7	27,418 4 11	1,797,669 4 6	798,011 13 1	- - -	925,772 19 10	—
3	357,958 13 –	4,617 8 –	11,205 6 7	17,197 12 3	33,272 10 8	- - -	340,761 – 9	—
4	491,444 19 8	- -	180 – –	307,311 4 –	195,462 5 10	147,238 3 10	36,895 11 10	34,873 15 8
5	129,251 – 4	498 11 6	- -	127,907 3 3	- -	- - -	1,343 17 1	—
6	23,500 – –	- -	- -	9,726 8 10	- -	13,773 11 2	—	—
7	32,700 – –	650 – 1	- -	31,303 11 5	- -	1,013 8 1	383 5 6	—
8	3,426 8 11	909 9 10	- -	2,976 8 11	– – 1	- - -	450 – –	—
9	2,430 – –	- -	- -	2,300 – –	– – 2	- - -	130 – –	—
10	13,245,024 6 –	105,747 1 11	67,754 5 5	5,008,800 17 2	2,432,306 18 1	5,899,415 12 8	2,336,807 16 2	64,039 17 5

remitted. This sum will be added in next years' Statement to the column "Amounts Remitted."

W. B. Sady, Accountant.

STATEMENT of the PAYMASTER GENERAL (*Dublin*), showing, to 31st March 1877, the Amounts issued as Advances by way of Loan, under various Acts, for the Purposes of certain PUBLIC WORKS, &c., in *Ireland* (other than those under the Management of the Commissioners of Public Works in *Ireland*); the Amounts paid into the Exchequer in Repayment of such Advances, and for Interest thereon; and the Balances of Principal remaining outstanding.

	NATURE OF ADVANCES, AND ACTS.	ADVANCES AND REPAYMENTS. Amounts Issued from the Exchequer during the Year.	Amounts Repaid during the Year.	Total Amounts Advanced.	Total Payments into the Exchequer in Repayment of Principal and Interest thereon. Principal.	Interest.	Amounts Remitted.	Balances Outstanding. Principal.	Interest.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	Gaols and Bridewells - 50 G. 3, c. 103, and 7 G. 4, c. 74 -	300 - -	3,436 10 6	892,758 6 9	871,533 6 3	- -	1,928 5 9	19,296 14 9	No Interest has accrued to the Exchequer on these Advances.
2	Lunatic Asylums: Building* - - 1 & 2 G. 4, c. 33, and 18 & 19 V. c. 109	32,205 6 -	30,711 17 -	1,131,465 15 4	794,228 2 2	- -	12,183 - -	325,054 13 2	
3	Support - - - 6 G. 4, c. 54 - - - - - -	103,189 1 8	129,354 4 9	3,368,587 18 10	3,229,132 2 11	- -	- -	139,455 15 11	
4	Valuation of Lands and Tenements. 7 G. 4, c. 62, and 6 & 7 W. 4, c. 84 -	- -	6 10 5	703,942 19 7	703,436 13 2	- -	{499 18 3 †6 8 2}	—	
5	Building Schools - 53 G. 3, c. 107, and 3 G. 4, c. 79 -	- -	‡150 - -	10,293 5 7	8,936 11 4	- -	- -	§ 1,356 14 3	—
6	Tithe Composition - 4 G. 4, c. 99, and 2 & 3 W. 4, c. 119 -	- -	- -	279,451 2 7	51,724 6 6	- -	- -	227,726 16 1	—
7	Commissioners of Wide Streets (Dublin). 6 G. 4, c. 128 - - - - - -	- -	- -	36,895 6 5	36,895 6 5	116,277 13 4	- -	‖ 226,728 17 6	—
	40 G. 3, c. 60, s. 15, and 6 G. 4, c. 128	- -	- -	226,728 17 6	- -				
8	Relief of Trade - - 1 G. 4, c. 39 - - - - - -	- -	¶47 5 1	178,076 7 7	137,775 17 9	- -	- -	‖ 40,300 9 10	—
9	Dunleary Harbour - 56 G. 3, c. 62 - - - - - -	- -	- -	218,769 4 7	73,514 10 9	124,825 - 7	- -	‖ 145,254 13 10	—
10	Suitors' Fund, Court of Exchequer (in aid of). 5 & 7 V. c. 55, and 13 & 14 V. c. 51	- -	- -	126,491 10 2	559 6 3	7,800 7 2	- -	‖ 125,932 3 11	—
	TOTALS - - - £.	**135,694 7 8	163,706 7 9	7,173,460 14 11	5,907,736 3 6	248,903 1 1	14,617 12 2	1,251,106 19 3	—

* Since 1st April 1868, the Advances for building Lunatic Asylums, and certain Repayments on account of the same, have been made through the Commissioners of Public Works in Ireland. These amounts are included above.

† Remitted by Treasury Letter, dated 4th July 1876.

‡ Received from Endowed Schools at Clonmel and Banagher.

§ Under 40 & 41 Vict. c. 27, 350 *l.* 15 *s.* 4 *d.* has been remitted, and will be written off from next year's account.

‖ These sums have been remitted under 40 & 41 Vict. c. 27, except 5,000 *l.* for "Relief of Trade."

¶ Received from Bank of Ireland, being balance of an account of Commissioners for Relief of Trade.

** The difference between this amount and that shown in the Summary, p. 86, as issued from the Exchequer, arises from the fact that the Bank of Ireland omitted to carry to the credit of the Public Works Commissioners a sum of 3,000 *l.* until after the 1st April.

Note.—Under 40 & 41 Vict. c. 27, Loans to Local Authorities in Ireland are to be made through the Commissioners for Public Works in Ireland.

STATEMENT of various OLD ADVANCES made from the EXCHEQUER which are not yet fully repaid nor remitted.

Acts under which the Issues were made.	Year of Advance.	PURPOSE FOR WHICH ADVANCED.	Total Amounts Advanced.	Payments to Exchequer in Year 1876–77.	Total Payments into Exchequer, to 1st March 1877. Principal.	Total Payments into Exchequer, to 1st March 1877. Interest.	Amounts Remitted.	Authority for the Remission.	Balance of Principal outstanding.	REMARKS.
		PUBLIC WORKS, &c.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	
		ENGLAND.								
59 G. 3, c. 48; 4 & 5 W. 4, c. 66; 7 & 8 V. c. 65 (Local) -	1819 to 1825	Menai Bridge - - -	231,498 18 –	2,582 14 8	- -	227,662 15 6	- -	- -	271,498 18 –	* It will be observed that the figures relating to this advance do not correspond with those in the Finance Accounts of 1875–76 (p. 79). The reason of the discrepancy is, that, on further investigation, it has been found that, though the actual sum issued from the Consolidated Fund on this account was larger than was originally supposed, yet about one-third of it only was recoverable from the boroughs, the remainder constituting a final charge on public funds.
		Conway Bridge - -	40,000 – –							
1 & 2 G. 4, c. 115 -	1821 to 1822	Towards building a Bankruptcy Court.	22,300 – –	- -	10,000 – –	- -	- -	- -	‡ 12,300 – –	
5 & 6 W. 4, c. 76 - -	1836	Towards the expense of revising the List of Burgesses.	* 3,853 10 –	- -	* 3,832 10 –	- -	- -	- -	‡ * 21 – –	
		SCOTLAND.								
33 G. 3, c. 104; 45 G. 3, c. 85.	1800 to 1817	Towards making and maintaining the Crinan Canal.	74,400 – –	- -	- -	- -	- -	- -	‡ 74,400 – –	
4 G. 3, c. 138 - -	1815	On account of the Queen's Ferry, Firth of Forth.	10,000 – –	- -	- -	- -	- -	- -	‡ 10,000 – –	
53 G. 3. c. 125 (Local) -	1815	On account of Fife and Midlothian Ferries.	10,000 – –	- -	- -	- -	- -	- -	‡ 10,000 – –	
56 G. 3, c. 83 (Local); 58 G. 3, c. 44.	1818 to 1824	Glasgow and Carlisle Roads	† 50,000 – –	- -	† 2,109 9 7	† 14,103 10 1	A portion of the interest.	Treasury Minute.	‡ † 47,890 10 5	† The figures relating to this loan likewise do not exactly tally with those in the accounts of the preceding year. The total sum issued is here given, including the 300 *l.*, subsequently returned, which it is thought more properly forms a repayment of principal. Of the other sums repaid, the amount of 1,809 *l.* 9 *s.* 7 *d.*, having found its way into the Exchequer immediately after the interest on a portion of the loan had been forgiven, is brought to account as a repayment of principal. The annual rent of Beattock Inn, which has hitherto been received as interest on debt, is now paid in as miscellaneous revenue, under "Casual Receipts."
		IRELAND.								
3 & 4 W. 4, c. 100; 1 & 2 V. c. 109.	1839	Tithe Relief - - -	1,018,448 1 1	- -	- -	- -	- -	- -	1,018,448 1 1	
6 G. 4, c. 35 - -	1833 to 1837	Public Works, &c. (Ulster Canal).	120,000 – –	- -	- -	- -	- -	- -	120,000 – –	
		COLONIAL.								
9 G. 4, c. 91 - -	1829	Welland Canal, Canada -	50,000 – –	- -	- -	- -	- -	- -	‡ 50,000 – –	
1 W. 4, c. 34 - -	1831–2	Shubenaccadie Canal, Nova Scotia.	20,000 – –	- -	- -	- -	- -	- -	‡ 20,000 – –	
4 V. c. 13; 5 & 6 V. c. 61.	1841 to 1846	Colonisation Commissioners for South Australia.	163,016 – 5	- -	- -	- -	147,500 – –	5 & 6 V. c. 61.	15,516 – 5	
9 & 10 V. c. 42 - -	1846 to 1849	New Zealand Company, for Colonisation purposes.	236,000 – –	- -	- -	- -	The interest on the debt.	10 & 11 V. c. 112.	‡ 236,000 – –	
		TOTALS - - - £.	2,049,516 9 6	2,582 14 8	15,941 19 7	241,766 5 7	147,500 – –	- -	1,886,074 9 11	

† Under 40 & 41 Vict. c. 32, those sums have been remitted, subject to certain provisions.

STATEMENT of Old Advances made from the Exchequer which have been either Repaid in full or Remitted.

By whom Advanced.	ACT.	DESCRIPTION.	AMOUNT Advanced.	TOTAL PAYMENTS into EXCHEQUER of		AMOUNTS Remitted.	AUTHORITY for Remission.	REMARKS.
				PRINCIPAL.	INTEREST.			
1.	2.	3.	4.	5.	6.	7.	8.	
		RELIEF OF COMMERCIAL DISTRESS:	£. s. d.	£. s. d.	£. s. d.	£. s. d.		
	33 Geo. 3, c. 29 - -	"For the assistance of such persons as may be desirous to accept the same" - - - - -	2,202,200 - -	2,202,200 - -	63,716 16 2	—	—	
	39 Geo. 3, c. 5 - -	Relief of Merchants trading between Liverpool and Lancaster - - -	269,200 - -	269,200 - -	5,069 1 1½	—	—	
	51 Geo. 3, c. 15 - -	Relief of Commercial Credit	1,388,000 - -	1,388,000 - -	64,090 9 1	—	—	
		WEST INDIA RELIEF:						
	35 Geo. 3, c. 127 -	Islands of Grenada and St. Vincent, for the assistance of persons connected with - - - -	(a) 910,000 - -	910,000 - -	278,813 - -	- - -	- - -	(a) Exchequer Bills.
			(b) 457,600 - -	457,600 - -	209,699 19 8	- - -	- - -	(b) Grant in Supply.
	6 & 7 Will. 4, c. 63 -	Antigua, Nevis, and Montserrat, for the relief of -	135,000 - -	135,000 - -	65,403 16 5	—	—	
	11 Vict. c. 22 - -	Tobago, Trinidad, and British Guiana, for the relief of - - - -	154,073 - 8	154,073 - 8	83,282 4 -	—	—	
		PUBLIC WORKS, &c., ENGLAND:						
Treasury	39 Geo. , c. 69, &c. -	Improvement of the Port of London and construction of the West India Docks - - - - -	1,225,598 15 8	1,225,598 15 8	4,042 1 5½	—	—	
	7 Geo. 4, c. 40 - -	London Bridge, Rebuilding	431,000 - -	431,000 - -	452,950 - -	—	—	
	6 & 7 Will. 4, c. 76 -	Lighthouses, for the purchase of, in the hands of Corporations or individuals - - - - -	150,000 - -	150,000 - -	30,908 11 -	—	—	
	2 & 3 Vict. c. 88 -	Birmingham Police, Improvement of - -	10,000 - -	10,000 - -	—	—	—	* Including transfer under 18 & 19 Vict. c. 95, to Land Revenues, 120,600*l.* (Parliamentary Paper, 99—Session 1856); and value of Property exchanged by Office of Woods for Property in Cranbourne-street, 13,978 *l.* 3 *s.* 8 *d.*
	16 Vict. c. 18 - -	Metropolitan Improvements	1,129,397 - 2	1,129,397 - 2*	180,707 10 1	- - -	- - -	
		PUBLIC WORKS, SCOTLAND:						
	45 Geo. 3, c. 114 -	Leith Harbour and Docks, Improvement of - -	265,000 - -	86,625 10 4	111,876 15 6½	178,374 9 8	23 & 24 Vict. c. 48, s. 3	

	46 Geo. 3, c. 132 -	For the erection of a Lighthouse on Bell or Cape Rock, and for the purchase of the Island and Lighthouse of May -	55,000 - -	55,000 - -	68,228 - 11	—	—	
	14 & 15 Vict. c. 66 -	Bridge at Inverness, rebuilding of - - -	13,790 - -	3,100 - -	2,938 10 -	10,600 - -	25 & 26 Vict. c. 105.	
Public Works Loan Commissioners.	For particulars, *see* Detailed Statement, page 92 -	Sums omitted from current account of the Public Works Loan Commissioners, the Services of which are complete or closed (omitting however, 120,000 *l.* for Ulster Canal, which is included in Statement, page 99) -	2,954,052 2 8	1,352,821 16 4	379,079 15 11	1,540,778 12 9 • 60,451 13 7	*See* Statement on page 92 - -	• Irrecoverable.
Commissioners of Public Works, Ireland.		PUBLIC WORKS, &c., IRELAND:						
	6 Geo. 4, c. 101 -	Roads and Bridges, towards the repairs of - -	197,167 8 6	197,167 8 6	—	—	—	
	1 & 2 Will. 4, c. 33 -	Repair of Grant Roads -	68,143 - -	68,143 - -	—	—	—	
Vice Treasurer, Paymaster of Civil Services, and Paymaster General, Ireland.	9 Vict. c. 3 -	Fisheries, Commissioners of, Preliminary Inquiries	500 - -	500 - -	—	—	—	
	52 Geo. 3, c. 167 -	Trinity College, Dublin -	18,461 10 9	18,461 10 9	—	—	—	
	6 & 7 Will. 4, c. 116 -	County Tyrone - - -	8,000 - -	8,000 - -	—	—	—	
	54 Geo. 3, c. 230 -	Londonderry, Mayor, &c., of - - - - -	13,846 3 1	9,803 1 -	- - -	4,043 2 1	Private Act, 1843.	
	6 Geo. 4, c. 128 -	Corn Exchange, Dublin -	7,846 3 1	218 4 3	3,250 8 2	7,627 18 5	Treasury Letters, 16 June 1836, and 15 May 1846.	
	3 & 4 Will. 4, c. 100 -	Tithe Million, Expenses of -	5,210 15 -	5,200 14 8	- - -	10 - 4	Treasury Letter, 15 January 1846.	
	2 Will. 4, c. 41 -	Relief of Clergy - - -	49,990 - -	16,496 6 11	- - -	33,493 13 1	3 & 4 Will. 4, c. 100, and Treasury Letter, 15 January 1846.	
	58 Geo. 3, c. 47 -	Fever Hospitals - - -	78,145 12 6	78,145 12 6	—	—	—	
	58 Geo. 3, c. 47, and 2 Will. 4, c. 9 -	Cholera Expenses - -	196,575 2 9	196,213 2 9	- - -	362 - -	Treasury Letters, 16 February 1842, 24 October 1844, 30 December 1844, and 27 February 1845.	
	43 Geo. 3, c. 158 - 49 Geo. 3, c. 103 -	Board of First Fruits - -	127,948 12 3	35,328 1 10	62 9 3	92,620 10 5	4 Geo. 4, c. 86.	
	54 Geo. 3, c. 180 - 3 Geo. 4, c. 1 - -	Insurrection Acts - -	37,989 - -	37,715 18 10	- - -	273 1 2	Treasury Letter, 26 February 1842.	
		Carried forward - - £.	12,509,644 7 1	10,581,009 5 7	2,004,119 8 9½	1,928,635 1 6		

STATEMENT of Old Advances made from the Exchequer which have been either Repaid in full or Remitted—*continued.*

By whom Advanced.	ACT.	DESCRIPTION.	AMOUNT Advanced.	TOTAL PAYMENTS into EXCHEQUER of PRINCIPAL.	TOTAL PAYMENTS into EXCHEQUER of INTEREST.	AMOUNTS Remitted.	AUTHORITY for Remission.	REMARKS.
1.	2.	3.	4.	5.	6.	7.	8.	
			£. s. d.	£. s. d.	£. s. d.	£. s. d.		
		Brought forward - -	12,509,644 7 1	10,581,009 5 7	2,004,119 8 9½	1,928,635 1 6		
Vice Treasurer, Paymaster of Civil Services, and Paymaster General, Ireland—*continued.*	54 Geo. 3, c. 131 -	Peace Preservation Acts -	461,267 11 8	436,758 15 2	- - -	24,508 16 6	Treasury Letter, 16 March 1841, and 26 February 1842.	
	3 Geo. 4, c. 103 - -	Constabulary - - -	1,815,117 7 6	1,578,770 3 10	- - -	236,347 3 8	—	
	6 Will. 4, c. 13 - -	Constabulary - - -	1,996,370 17 9	1,996,370 17 9	—	—	—	
	6 Will. 4, c. 13 - -	Extra Constabulary - -	13,607 14 3	13,607 14 3	—	—	—	
	9 Vict. c. 2 - - } 9 & 10 Vict. c. 78 - }	Public Works - - -	130,000 - -	130,000 - -	18,599 5 -	—	—	
	3 Geo. 4, c. 84 - -	Public Works, &c. - -	95,414 16 1	95,414 14 8	- - -	- 1 5	Treasury Letter, 15 January 1846.	
	3 Geo. 4, c. 34 - -	Public Works, &c. - -	42,775 7 8	- - -	- - -	42,775 7 8	Treasury Letter, 15 January 1846.	
	3 Geo. 4, c. 34 - -	Public Works, &c. - -	12,425 - 1	267 18 5	- - -	12,157 1 8	Treasury Letter, 15 January 1846.	
	45 Geo. 3, c. 43 - } 4 Geo. 4, c. 86 - }	Post Roads - - - -	490,347 6	490,347 7 6	—	—	—	
	45 Geo. 3, c. 43 - -	Turnpike Road Debentures	41,037 3	13,350 1 7	14,782 18 8	27,687 13 8	Treasury Letter, 22 October 1859, and 7 March 1850.	
	56 Geo. 3, c. 71 - -	Howth Turnpike Road -	3,692 6 2	- - -	- - -	3,692 6 2	Treasury Letter, 4 May 1843.	
	12 Vict. c. 24 - - } 12 & 13 Vict. c. 73 - }	General Rate in aid - -	150,000 - -	150,000 - -	—	—	—	
	10 Vict. c. 17 - -	Temporary Relief - -	953,551 19 -					
	13 Vict. c. 14 - -	Consolidated Annuities -	1,900 - -	528,181 7 11	- - -	727,270 11 1	16 & 17 Vict. c. 75.	
	13 Vict. c. 14 -	Consolidated Annuities, Distressed Poor Law Unions - - - -	300,000 - -					
		TOTALS - - - £.	19,017,152 10 -	16,014,078 6 8	2,037,501 12 5½	3,003,074 3 4		

STATEMENT of UN-REPAID ADVANCES made to COLONIAL GOVERNMENTS from Votes of Parliament.

COLONY.	Year in which Voted.	Vote.	Amount.	Purpose for which Advance made.	Amount remaining Un-repaid.
			£.		£.
ST. HELENA -	1871–2	Grants in Aid of Colonies, Civil Services, Class V.	5,158	To defray certain Debts specified in Parliamentary Paper, 395, of 1871, page 14.	5,158
GOLD COAST -	1874–5	- - ditto -	35,000	For Works and other Services -	20,000
FIJI - - -	1875–6 1876–7	- - ditto -	40,000 35,000	- - ditto - - - - -	75,000
GRIQUA LAND WEST - -	–	Army - -	*19,919	Expedition to suppress Outbreak at Kimberley.	15,919
			TOTAL on 31st March 1877 - - - £.		116,077

* This is the Amount of the Extra Expenses incurred by the War Office, so far as at present known. The Total Amount of the Debt is to be paid by instalments in five years.